System Configuration & Administration Training

Delivered by
CGI AMS
July 13 – 15, 2005

The objective of the system administration training curriculum is to provide select Commonwealth project team members instruction in the table configuration and setup requirements necessary to implement and support the eMARS application.

This session will provide:

◆ An overview/review of the several key configuration areas with a focus on how they are integrated and work together to support accounting transaction processing and controls

◆ Hands-on exercises that illustrate the use of key configuration areas and facilitate the discussion of Commonwealth-specific needs and business scenarios

- Introduction

- General configuration

- Configuration Touching Document-level Setup

- Miscellaneous configuration of interest

- Ad hoc discussion and exploration

- **Introduction**
  - Configuration areas covered
  - Commonwealth areas of interest
  - Course flow
- General configuration
- Configuration Touching Document-level Setup
- Miscellaneous configuration of interest
- Ad hoc discussion and exploration

Configuration Areas Covered: (give or take depending on interest and session dynamics)

- **Chart of Accounts**
  - Review Chart of Accounts setup
  - Review business rules, controls, options, and rollups
  - Review the Special Accounts table (SPEC)
- **General Accounting**
  - Review system wide configuration – SOPT, SPEC, Events, Posting Codes, Budget Staging
  - Review event and posting rules
  - Review document setup controls and configurations
  - Review journal and ledger configuration
- **Budget Controls**
  - Review system-wide budget structures, tracking amounts, and budget controls
  - Review fund level controls
  - Review optional controls for budget reserves, posting code updates, allotments, etc.
  - Review line level controls
- **Workflow and Approvals**
  - Review approval roles and approvers
  - Review approval conditions, comments, and e-mail setup
  - Review approvals setup and controls
- **Security**
  - Review security models and setup; focus on 'Page' level security
  - Review Workspaces
  - Review resource groups, security roles, and access controls
  - Review row-level and field level security setup

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Some Specific Configuration of Interest:

- **Creating new, special-use documents**
  - Create a new posting code
  - Clone an Event Type using the new posting code
  - Create a new document code restricting Event Types to include the clone
- **Date restrictions on documents** – ex: Restrict activity on certain documents by FY or accounting period – when is the best time to use Document Controls (via DCTRL) vs. Budget Staging?
- **Security:**
  - Overview of the 'page security' model and approach
  - Field-level security – ex: restrict TP document to only allow a specific miscellaneous vendor code
- **Chart of Account controls** – ex. only allow specific object codes to be used on TP's, and disallow the use of those object codes on other payment documents
- **How to make Pages "Not Viewable" from Page Search**
- **Use of Workspaces** – ex: setup a workspace for Central Chart of Accounts and a separate one for Agency Chart of Accounts
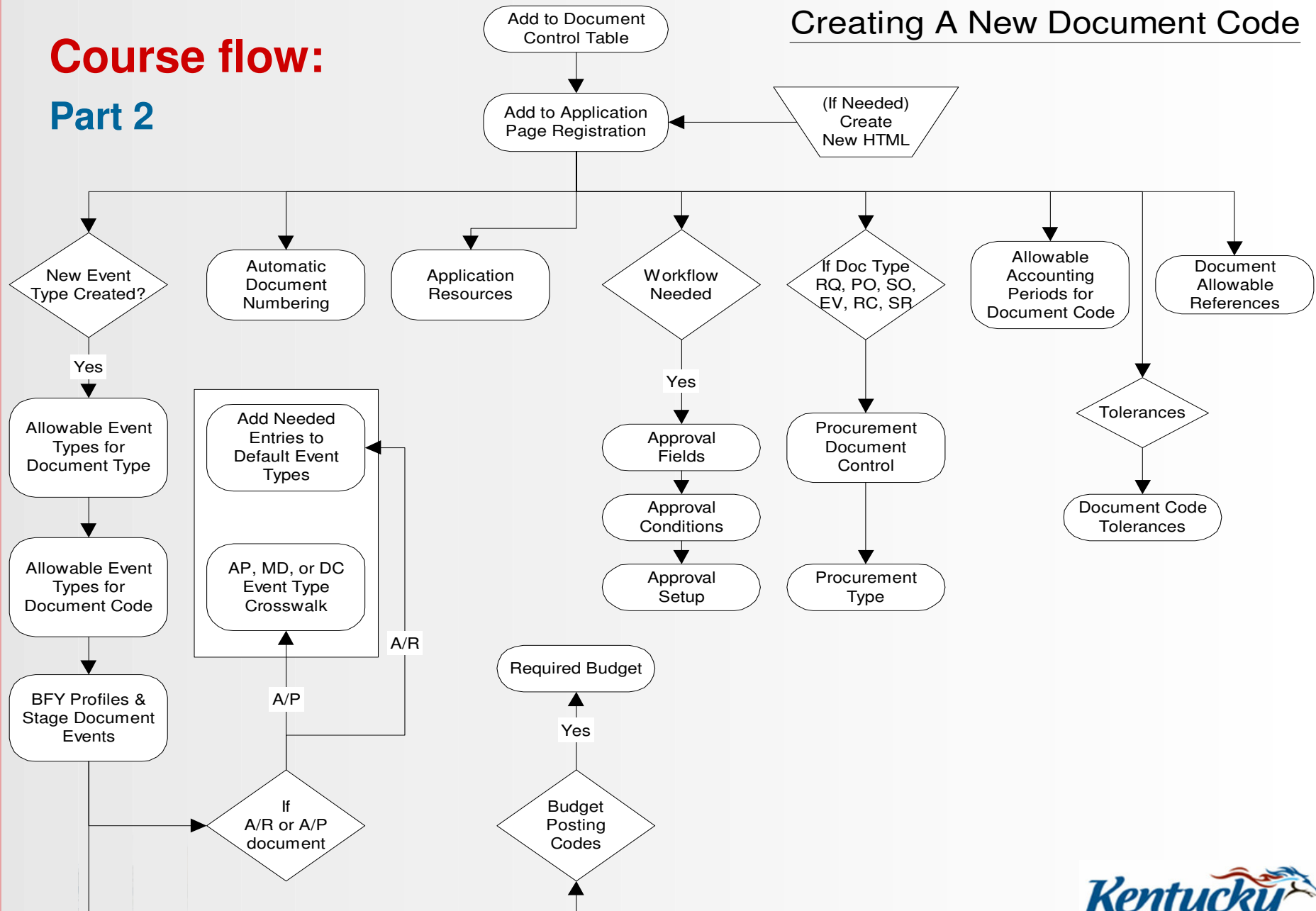
Course flow:

- Guided mostly by configuration that supports the creation and use of any given accounting document
  - We will use a CH-type document as our primary example.
  - The process of creating a new document will include several substantive tangents along the way to cover the lion's share of the course content.
  - This process will provide context for how many of the different configuration areas work together to support transaction/document processing.

- General supporting setup that precedes document-level setup and is not a natural tangent from document-level setup (we'll start here)

- Miscellaneous setup and ad hoc exploration/discussion

Course flow:

Part 2

Creating A New Document Code

- Introduction
- **General Configuration**
  - Chart of Accounts
  - General Accounting – SOPT, SPEC, Balances, JLCTRL
  - Budget Controls
- Configuration Touching Document-level Setup
- Miscellaneous configuration of interest
- Ad hoc discussion and exploration

Chart of Accounts Setup

The sequence for setting up the chart of accounts may be as follows:

1. Create Fiscal Year table entries for all years that chart of account codes will be defined.

2. Determine which codes will be used for budgeting and if they match a budget structure.

3. Define hierarchies and rollups for each group of elements, i.e, fund accounting, organizational, budgeting, other classifications, cost accounting.

4. Define primary elements such as Object before establishing Sub Objects. Determine code structure, i.e., will code values be different than in 2.2?

5. Define Departments on both tables before defining most of the Programmatic elements and all of the Cost Accounting elements as Department is often the key to these elements.

6. Determine (and define) which other codes will be needed to meet management and reporting requirements.

7. Completion of combination validation, inference, and required element tables will now be possible as well as areas such as System Wide Defaults (SPEC) and other tables that supply default codes.

These steps facilitate mapping the current COA to the new COA. This begins the conversion process. These steps are discussed using the chart of accounts elements

HIERARCHIES AND ROLLUPS
Determine which will be used for each
Chart of Accounts element

CODE STRUCTURE
Determine if code values will Differ from 2.2

BUDGET LEVEL
Determine which codes will be Used for budgeting

OTHER CODES
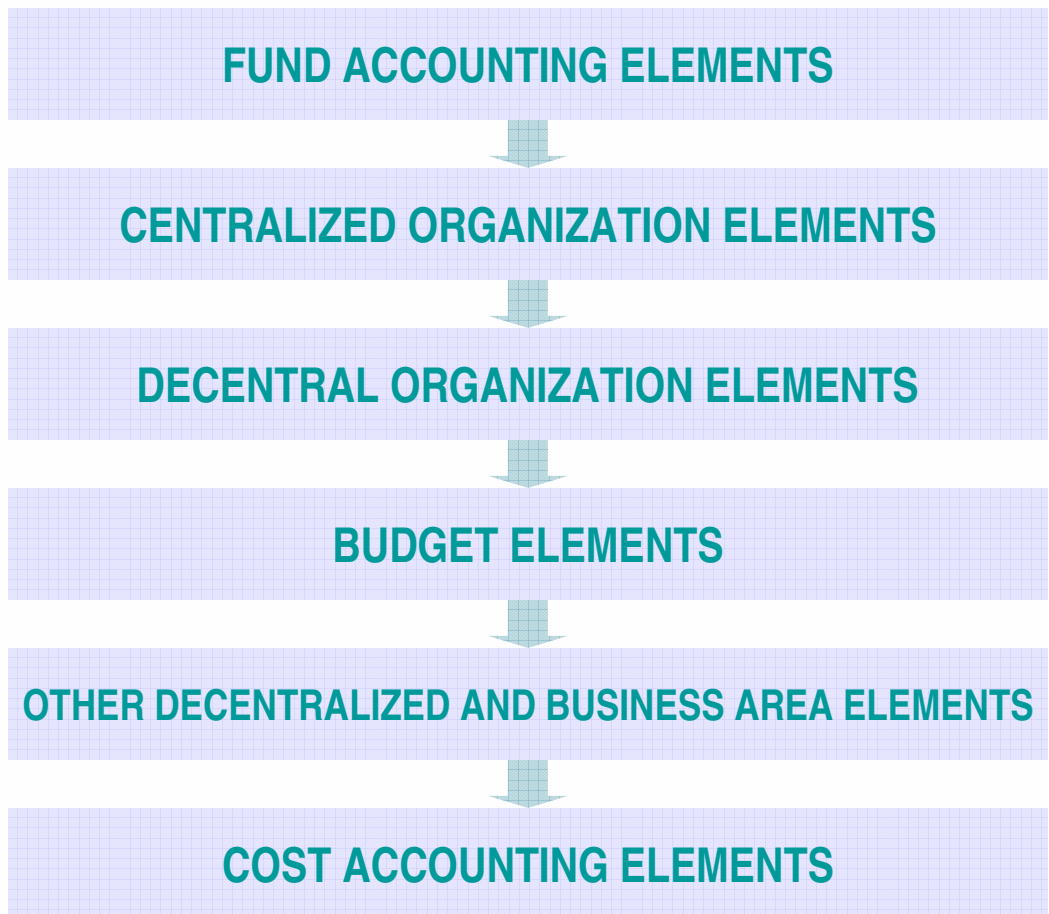Determine which optional codes will be needed

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Chart of Accounts Table Loading Sequence

During implementation, the ADVANTAGE Chart of Accounts, options, controls, and defaults are configured in sequence. In general, this process begins with central elements and controls, is followed by decentralized elements and controls, then the rules and options within the business areas.

The course covers the areas bracketed.

Setup Sequence

FUND ACCOUNTING ELEMENTS

CENTRALIZED ORGANIZATION ELEMENTS

DECENTRAL ORGANIZATION ELEMENTS

BUDGET ELEMENTS

OTHER DECENTRALIZED AND BUSINESS AREA ELEMENTS

COST ACCOUNTING ELEMENTS

Fund Accounting Elements

These elements support generally accepted accounting principles for reporting at the entity level. These elements determine the accounts that are used on transactions.

New features include CAFR rollups and additional sub-elements.

Fund Accounting classifications answer these questions:

- ‣ From What Source?
- ‣ To What Source?
- ‣ For What?
- ‣ In What Account?

Fund Accounting Elements

- ‣ Fund
- ‣ Object
- ‣ Revenue Source
- ‣ Balance Sheet Account

Organizational Elements

- ‣ Centralized
- ‣ Decentralized

Budgeting Elements

- ‣ Appropriation Unit
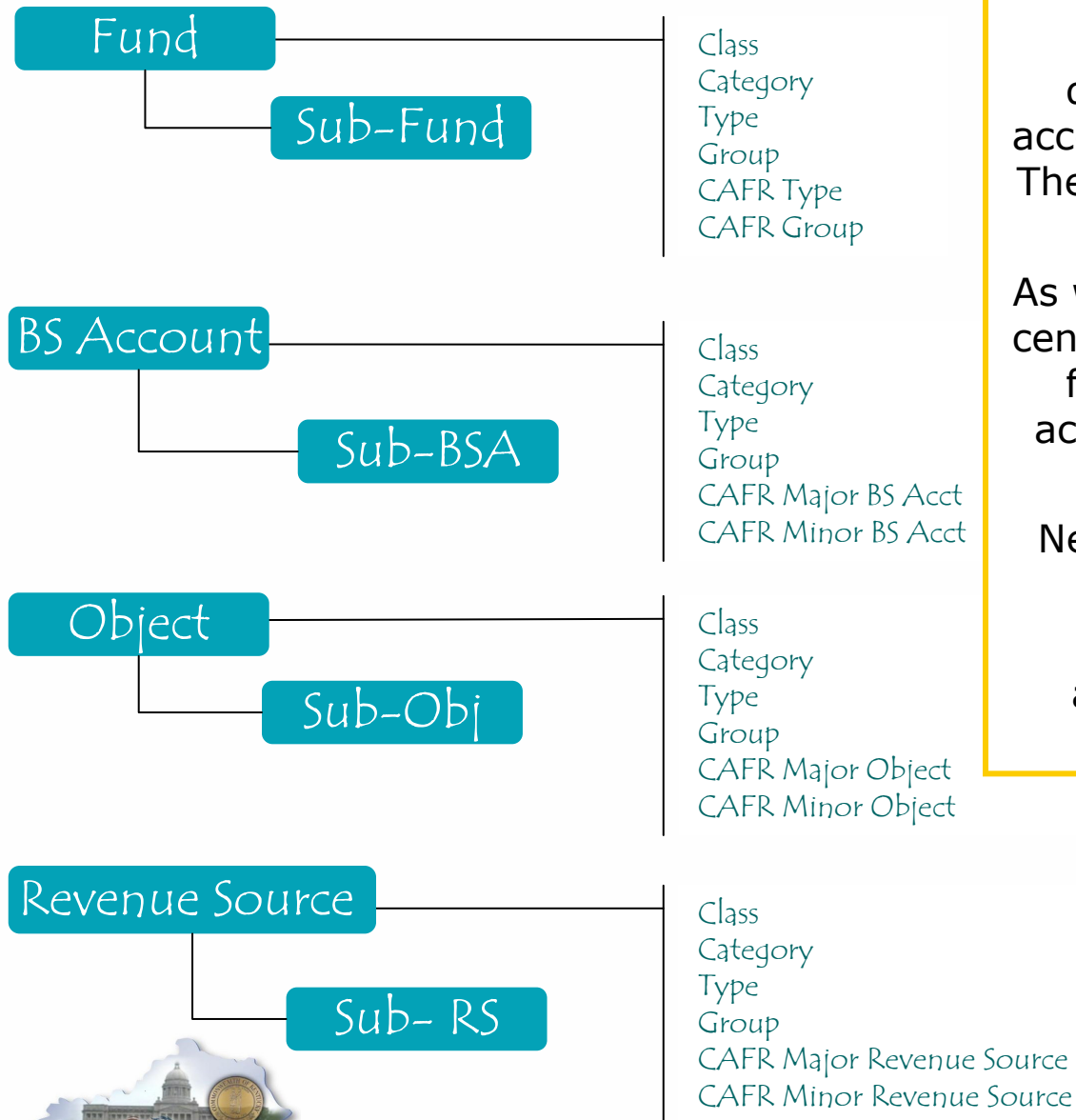
Other Classification Elements

- ‣ Location
- ‣ Activity
- ‣ Function
- ‣ Reporting Code
- ‣ Department Object
- ‣ Department Revenue Code
- ‣ Task
- ‣ Task Order

Cost Accounting Elements

- ‣ Major Program
- ‣ Program
- ‣ Phase
- ‣ Program Period

Fund Accounting Elements

Fund
- **Sub-Fund**

Class
Category
Type
Group
CAFR Type
CAFR Group

BS Account
- **Sub-BSA**

Class
Category
Type
Group
CAFR Major BS Acct
CAFR Minor BS Acct

Object
- **Sub-Obj**

Class
Category
Type
Group
CAFR Major Object
CAFR Minor Object

Revenue Source
- **Sub- RS**

Class
Category
Type
Group
CAFR Major Revenue Source
CAFR Minor Revenue Source

Process Overview

Fund Accounting elements determine key accounts coded on accounting and budget transactions. They are generally the first group of elements to be defined.

As with 2.2, these codes are defined centrally. Conversion from 2.2 to 3 for these codes is usually straight across unless custom modifications were made in 2.2.

New features include sub-elements and CAFR reporting rollups.

Example hierarchies for the fund accounting elements are found in the product documentation.

Controls

Organization Inference (ORGINF**)**
Valid/Invalid Fund BSA (VFBSA, IFBSA**)**
Valid/Invalid Fund Dept (VFD, IFD**)**
Valid/Invalid Fund RSRC (VFRSRC, IFRSRC**)**
Valid/Invalid Document Code and Object (VDOCOBJ, IDOCOBJ**)**
Dept Obj-RSRC Requirements (REQELM**)**

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Valid Document Code and Object Combination

M

Fiscal Year	Document Code	Object

First Prev Next Last

Save Undo Delete Insert Copy Paste   Search

*Fiscal Year :

*Document Code :

*Object :

VDOCOBJ

← Configuration Points

▸ Allows you to specify which object codes are valid or are invalid by document code

▸ **Commonwealth example**: TP document should be restricted to specific objects (VDOCOBJ) while other payment documents should not use the same object codes (IDOCOBJ).

Invalid Document Code and Object Combination

Fiscal Year	Document Code	Object

First Prev Next Last

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*Fiscal Year :

*Document Code :

*Object :

IDOCOBJ

Configuration Points →

▸ Infers Fund, Function, and Activity based on FY, Dept, Unit, and Doc.

Organization Inference

Menu Quick Search

	Fiscal Year	Department	Unit	Document Category	Fund	Function	Activity
✓	2004	150	1300	PROC	101	1000	PAV
	2005	150	1300	PROC	101	1000	PAV
	2006	150	1300	PROC	101	1000	PAV

First Prev Next Last

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*Fiscal Year : 2004

*Department : 150
Department of Transportation

*Unit : 1300
Earthmoving - HWY

*Document Category : PROC

*Fund : 101
General Fund

*Function : 1000
Road Construction

*Activity : PAV
Paving

Fund

FUND

Fiscal Year	Fund	Name	Active	Effective From	Effective To
2005	100	Warrant Clearing Fund	Yes		
2005	101	General Fund	Yes		
2005	102	Education Supplies & Materials Fund	Yes		
2005	200	Payroll Clearing Fund	Yes		
2005	201	Highway Fund	Yes		

First Prev Next Last

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▼ General Information

*Fiscal Year : 2005
*Fund : 100
*Name : Warrant Clearing Fund
*Short Name : WCF
*Bank : 1
*EFT Bank : 1
*Master Bank : 1

Effective From :
Effective To :
Active : ☑
Budgeting : ☑
Component Unit : ☐
Pool Fund : ☐
Major Fund : ☐
General Capital Assets (GCA) Fund : ☐
Allow Negative Investment Balance : ☐

▶ Year End Options
▶ Rollups
▶ Description/Contact

▼ Rollups

Fund Class : R
Fund Category :
Fund Type : G
Fund Group :
CAFR Fund Group : GOV
CAFR Fund Type : 1010

▼ Year End Options

*Pre Enc Close Action : No Action
Pre Enc Roll Min : $0.00
*Enc Close Action : No Action
Enc Roll Min : $0.00
*Recv Close Action : No Action
Recv Roll Min : $0.00
*Close Fund Into Account : Fund Balance

Configuration Points

▸ Determine rollups and set up

▸ Determine roll & lapse rules (provide SOPT override by Fund):
— Pre-encumbrances
— Encumbrances
— Receivables

▸ Determine CAFR options

▸ Bank Account Codes and Rollups are defined on their own tables and need to be setup prior to usage on FUND

▸ A number of Fund-Level controls exist in the application – most covered in GA and Budgeting.

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OBJ

Object

Menu Quick Search

Fiscal Year	Object	Name	Active	Effective From	Effective To	Disbursement Frequency
2005	8100	Land	true			Daily
2005	8120	Land Improvements	true			Daily
✓ 2005	8130	Highway Construction	true			Daily
2005	8140	Improvements other than Buildings	true			Daily
2005	8141	Paving	true			Daily

First Prev Next Last

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▼ General Information

*Fiscal Year : 2005

*Object : 8130

*Name : Highway Construction

*Short Name : Hwy Constctn

Contact Code :

Effective From :

Effective To :

Active : ☑

Budgeting : ☑

Descripti

▶ General Options

▶ Rollups

▼ Rollups

Object Class : 3000

Object Category : CO

Object Type : CE

Object Group : NF

Major CAFR Expense Type : 1

Minor CAFR Expense Type : 3

▼ General Options

FASB Class : Not Applicable

1099 Income Code :

Income Type :

Legal Services : ☐

Form Type :

Operating : Yes

Payroll : ☐

Reimbursement Eligible : ☑

Reimbursable : ☐

Eligible for Intercept process : ☐

FACP Eligible : ☑

Payment Lag : 0

Disbursement Frequency : Daily

Configuration Points

▸ Define options & controls for:

— Integration with other business areas

— Flexible controls

— Reporting options

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Expectations > Orientation > Interaction > Review

RSRC

Revenue Source

Menu Quick Search

Fiscal Year	Revenue Source	Name	Active	Effective From	Effective To
2005	0000	Master Closing	true		
2005	0001	NSF Check Charge	true		
2005	1000	Investment Revenue	true		
✓ 2005	3001	Sales And Use Taxes	true		
2005	3170	Real Estate Exam Fees	true		

First Prev Next Last

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General Information

*Fiscal Year : 2005

*Revenue Source : 3001

*Name : Sales And Use Taxes

*Short Name : Sales/Use Tx

FASB Class : Not Applicable

Contact :

Effective From :

Effective To :

Active : ☑

Budgeting : ☑

FHWA Revenue Credit : ☐

Use Tax Collection : ☐

Transferable : ☐

Operating : Not Applicable

...ible for Intercept Process : ☐

Federal Catalog Agency :

Federal Catalog Suffix :

Description :

Rollups

Revenue Class :

Revenue Category : RS

Revenue Type :

Revenue Group : NO

Major CAFR Revenue Type : 0100

Minor CAFR Revenue Type : 0111

Revenue Options

Finance Charge Fee 1 :

Finance Charge Fee 2 :

Finance Charge Fee 3 :

Finance Charge Fee 4 :

Finance Charge Fee 5 :

Finance Charge Fee Override : ☐

Apply Interest on Late Fee : ☐

Apply Interest on Admin. Fee : ☐

Apply Interest on NSF Fee : ☐

Apply Interest On Other Fee : ☐

Apply Interest Override : ☐

Configuration Points

Define options & controls:

—Revenue options

—Rollups

—Default BS accounts

—Fees, Charges, Write offs

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RSRC cont'

Revenue Accounts

Billed Unearned Receivable :	Billed Deposits :
Billed Unearned Receivable Sub Account :	Billed Deposits Sub Account
Billed Earned Receivable :	Collected Deposits
Billed Earned Receivable Sub Account :	Collected Deposits Sub Account
Billed Unearned Revenue :	Billed Vendor Refund

Configuration Points

‣ These tabs identify the default revenue balance sheet accounts—that could override those accounts on the Special Accounts (SPEC) account.

Applied Fee/WO Accounts

NSF Check Charge Revenue Source :	
NSF Check Charge Sub Revenue Source :	Unearned Revenue Write Off Sub Account :
Interest Charge Revenue Source :	Deposit Receivable Write Off :
Interest Charge Sub Revenue Source :	Deposit Receivable Write Off Sub Account :
Late Charge Revenue Source :	Billed Deposit Write Off :
Late Charge Sub Revenue Source :	Billed Deposit Write Off Sub Account :
Credit Card Fee Revenue Source :	Vendor Refund Receivable Write Off :
Credit Card Fee Sub Revenue Source :	Vendor Refund Receivable Write Off Sub Account :
Credit Card Fee Object :	Vendor Refund Write Off :
Credit Card Fee Sub Object :	Vendor Refund Write Off Sub Account :
Allowance for Bad Debt :	Earned Receivable Sent to Collection :
Allowance for Bad Debt Sub Account :	Earned Receivable Sent to Collection Sub Account :
Bad Debt Expense Object :	Vendor Refund Receivable Sent to Collection :
Bad Debt Expense Sub Object :	Vendor Refund Receivable Sent to Collection Sub Account :
Unearned Receivable Write Off :	
Unearned Receivable Write Off Sub Account :	

(partially obscured left column: Billed Unearned..., Collected Unea..., Collected Unearned..., Earn..., Earned Receivabl..., Billed Depos..., Billed Deposits Receivabl...)

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Balance Sheet Account

Menu Quick S

Fiscal Year	BSA	Name	Active
2005	1010	Cash - Bank South	true
✓ 2005	1150	Assets - Vehicles	true
2005	1151	Accumulated Depreciation - Vehicles	true
2005	2020	Accounts Payable	true
2005	3020	Fund Balance	true

First Prev Next Last

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BSA

▼ **Rollups**

BSA Class :   CAFR Major BSA Group : CA

BSA Category : GA   CAFR Minor BSA Group : 30

BSA Type :

BSA Group : W3

▼ **General Information**

*Fiscal Year : 2005

*BSA : 1150

*Name : Assets - Vehicles

*Short Name : Assets - V

Account Type : Asset

Level of Balance Control : Warning

FASB Class : Not Applicable

Contact Code :

Effective From :

Effective To :

Active : ☑

Cash Account : ☐

Memo Account : ☐

Payroll :

Contributed Account :

Description :

▼ **1099 Info**

1099 Type of Income :

Form Type :

Income Type :

Legal Services : ☐

▶ Rollups

▶ 1099 Info

Configuration Points

▸ Define options & controls:

— Integration with business areas

— Flexible controls

— Rollup options

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ADVANTAGE 2.2			ADVANTAGE 3		
Element Name	**Length**	**Key**	**Element Name**	**Length**	**Key**
Fund	4	FY	Fund	4	FY
Fund Class	2	FY	Fund Class	4	
Fund Category	2	FY	Fund Category	4	
Fund Group	1	FY	Fund Group	4	
Fund Type	1	FY	Fund Type	4	
			Sub Fund	4	FY, Fund
Object	4	FY	Object	4	FY
Object Class	3	FY	Object Class	4	
Object Category	2	FY	Object Category	4	
Object Group	2	FY	Object Group	4	
Object Type	2	FY	Object Type	4	
Sub Object	2	FY, Obj	Sub Object	4	FY, Object
Revenue Source	4	FY	Revenue Source	4	FY
Revenue Source Class	3	FY	Revenue Source Class	4	
Revenue Source Category	2	FY	Revenue Source Category	4	
Revenue Source Group	2	FY	Revenue Source Group	4	
Revenue Source Type	2	FY	Revenue Source Type	4	
Sub Revenue Source	2	FY, Obj	Sub Revenue Source	4	FY, Rev Src
Balance Sheet	4	FY	Balance Sheet	4	FY
Balance Sheet Class	3	FY	Balance Sheet Class	4	
Balance Sheet Category	2	FY	Balance Sheet Category	4	
Balance Sheet Group	2	FY	Balance Sheet Group	4	
Balance Sheet Type	2	FY	Balance Sheet Type	4	
			Sub Balance Sheet	4	FY, BSA
			CAFR Fund Group	4	
			CAFR Fund Type	4	
			Major CAFR Expense Type	4	
			Minor CAFR Expense Type	4	
			Major CAFR Revenue Type	4	
			Minor CAFR Revenue Type	4	
			CAFR Major BSA Group	4	
			CAFR Minor BSA Group	4	

Mapping Fund Accounting Elements

Organizational Elements

The Organizational elements identify how an entity is structured to meet reporting & budgeting requirements.

The Department code is the pivot point in the structure.

Elements can be defined at a higher level to create the central organization while elements defined at a lower level can be used to create decentralized organizations.

Fund Accounting Elements

‣ Fund
‣ Object
‣ Revenue Source
‣ Balance Sheet Account

Organizational Elements

‣ Centralized
‣ Decentralized

Budgeting Elements

‣ Appropriation Unit

Other Classification Elements

‣ Location
‣ Activity
‣ Function
‣ Reporting Code
‣ Department Object
‣ Department Revenue Code
‣ Task
‣ Task Order

Cost Accounting Elements

‣ Major Program
‣ Program
‣ Phase
‣ Program Period

Organizational Elements

Government Branch
Cabinet ———— **Department**

Gold: Centralized elements
Teal: Decentralized elements
Red: County instead of Group

Fiscal Year Control Elements

Division
Group
Section
District
Bureau

Other Elements

Location
Object
Revenue
        Source
Function
Activity

Rollups

Class
Category
Type
Group

Unit

Flexible Reporting Codes

Sub Unit
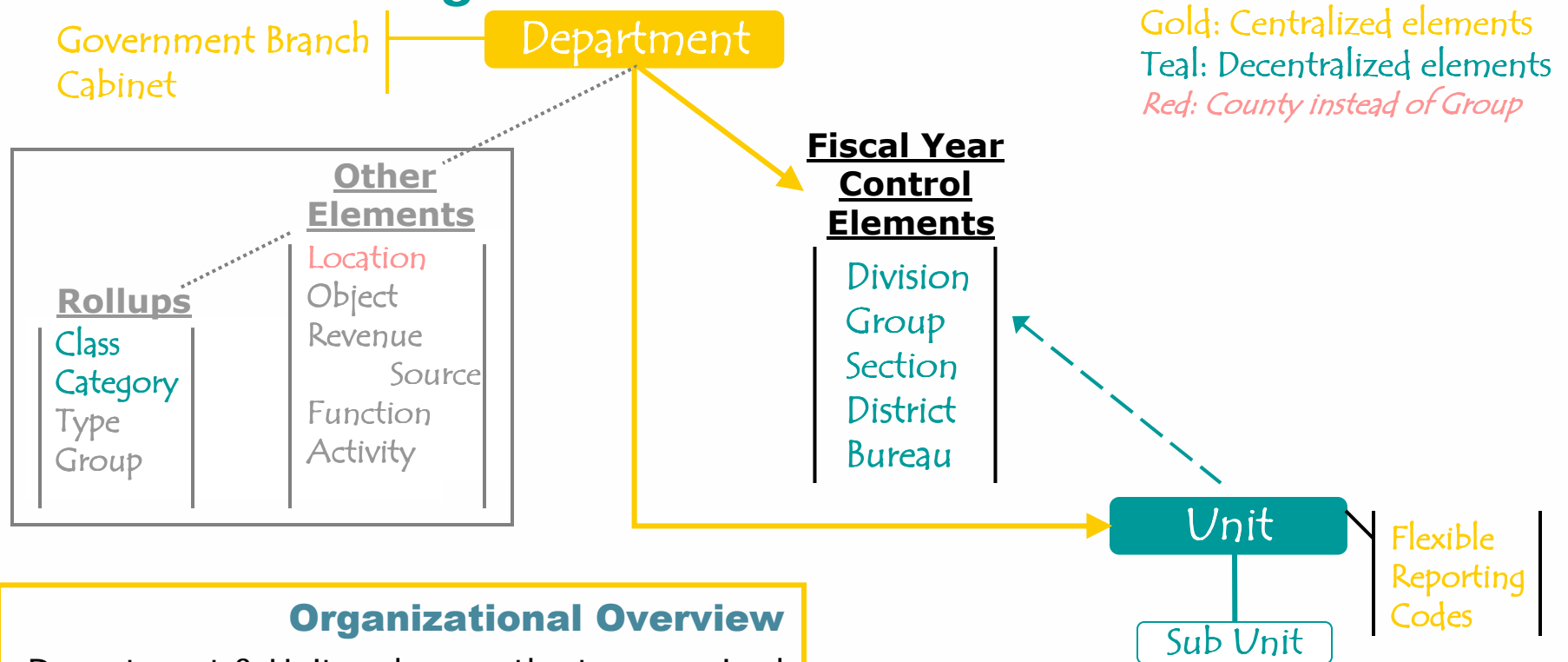
Organizational Overview

Department & Unit codes are the two required organization levels, though data entry of the Unit may be optional. Required organization levels are defined on the Department Fiscal Year Controls table.

In practice, Department, Unit, & Sub-Unit may be entered on documents. All other levels are inferred from Dept/Unit combination.

Other decentralized elements can be defined & linked to the central structure.

Controls

Unit Sub Unit Requirement (SUNTREQ)
Require Sub Unit by Unit (RQSUBYU)
Alternative Organization (ALTOR)

Organizational Elements

DEPT

Department

Configuration Points

▸ Define options & controls:

— Flexible control

— Integration with business areas

— Department/FY specific controls (see next slide)

	Department	Name	Active	Effective From	Effective To
✓	010	Personnel	Yes		
	020	Administration	Yes		
	030	Tourism and Economic Development	Yes		
	040	Department of Taxation	Yes		
	050	Department of Information	Yes		

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▼ General Information

*Department : 010   Effective From :

*Name : Personnel   Effective To :

*Short Name : Personnel   Active : ☑

          Budgeting : ☑

          AR Unit Inference : Set to ALL

▼ Buyers

Central Buyer :   Decentralized Buyer : latinsle

Central Buyer Team : PTA   Laura Tinsley

PURCHASING TEAM A   Decentralized Buyer Team :

▼ Description/Contact

Contact Code : 34   Description :

Todd Baker

703-333-3333

Todd.Baker@company.com

Disbursement Contact Code : 34

Todd Baker

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Organizational Elements

Department

DEPT

DEPTFY

Configuration Points

- ▸ Sets department organizational structure by Fiscal Year

- ▸ Identifies required organizational levels

- ▸ Link from DEPT

**DIV
GRP
SEC
DIST
BURE**

Configuration Points

▸ Define decentralized organizational levels

▸ Hierarchy/rollups established on the Unit table.

Organizational Elements

UNIT

Unit

Menu Quick Search

	Fiscal Year	Department	Unit	Name	Active	Effective From	Effec
	2005	150	100	Accounting	Yes		
	2005	150	1110	Bridge Structure & Foundation - HWY	Yes		
✓	2005	150	1211	Paving Team - Mixing Unit	Yes		
	2005	150	1212	Paving Team - Transportation Unit	Yes		
	2005	150	1213	Paving Team - Application	Yes		

First Prev Next Last

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▼ General Information

*Fiscal Year : 2005
*Department : 150
*Unit : 1211
*Name : Paving Team - Mixing Unit
*Short Name : Mixing
Contact Code :
Disbursement Contact Code :

Effective From :
Effective To :
Active : ☑
Budgeting : ☑
VSS Unit : ☐

▼ Rollups

Government Branch : 1
  Executive
Cabinet : TRA
  Transportation
Division : HWY
  Department of Highways
Group : G06
  Services - D〇

Section : 1000
  Construction - DOH
District : 1200
  Roadways
Bureau : 1210
  Paving Team

▼ Flexible Reporting

Flexible Reporting Code 1 :
Flexible Reporting Code 2 :
Flexible Reporting Code 3 :
Flexible Reporting Code 4 :
Flexible Reporting Code 5 :

▼ Buyers

Central Buyer :
Central Buyer Team :
Decentralized Buyer :
Decentralized Buyer Team :

▶ Rollups
▶ Flexible Reporting
▶ Buyers

Configuration Points

▸ Establish organizational Units (required)

▸ Determine organizational hierarchy/rollups

▸ Associate flexible reporting codes, if desired
(not keyed by Dept or Unit)

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Management Administrative & Reporting System

Mapping Organizational Elements

ADVANTAGE 2.2			ADVANTAGE 3		
Element Name	**Length**	**Key**	**Element Name**	**Length**	**Key**
			Government Branch	4	
			Cabinet	4	
Agency	3	FY	Department	4	
Organization Levels	4	FY, Agency			
			Division	4	FY, Dept
			Group	4	FY, Dept
			Section	4	FY, Dept
			District	4	FY, Dept
			Bureau	4	FY, Dept
			Unit	4	FY, Dept
Sub-Organization	2	FY, Agcy, Org	Sub-Unit	4	FY, Dept, Unit
			Flexible Reporting Code 1	4	FY
			Flexible Reporting Code 2	4	FY
			Flexible Reporting Code 3	4	FY
			Flexible Reporting Code 4	4	FY
			Flexible Reporting Code 5	4	FY
*match organization levels to new ADVANTAGE 3 elements					

Budgeting Elements

The Appropriation codes are budget specific, unlike other COA elements. They include the Appropriation Unit & four rollups:

- Class
- Category
- Type
- Group

Appropriations comprise a set of budget lines tied to the same budgeted authorization. They can be used to control expenditures and receivables at a number of levels.

Related control tables are:

- Appropriation Inference
- Budget Fiscal Year Inference

Fund Accounting Elements

- Fund
- Object
- Revenue Source
- Balance Sheet Account

Organizational Elements

- Centralized
- Decentralized

Budgeting Elements

- Appropriation Unit

Other Classification Elements

- Location
- Activity
- Function
- Reporting Code
- Department Object
- Department Revenue Code
- Task
- Task Order

Cost Accounting Elements

- Major Program
- Program
- Phase
- Program Period

Appropriation Unit

- Class
- Category
- Type
- Group

Controls

Appropriation Inference

BFY Inference

Default Prog/Doc Requirements
  Valid Prog/Phase
  Valid Prog/Phase/Actv

Appropriation Overview

In ADVANTAGE 2.2, an appropriation transaction was required to establish the appropriation unit code as well as the budgeted amount. Appropriation code table setup replaces the budget document entry for the code definition purpose.

Mapping Budgeting Elements

ADVANTAGE 2.2			ADVANTAGE 3		
Element Name	**Length**	**Key**	**Element Name**	**Length**	**Key**
			Appropriation Class	4	FY
			Appropriation Category	4	FY
			Appropriation Type	4	FY
			Appropriation Group	4	FY
Appropriation Unit	9	FY, Agency	Appropriation Unit	9	FY

Other Classification Elements

The Chart of Accounts model includes additional elements used for reporting & tracking transactions. Most elements are defined by fiscal year & department code, providing the ability to maintain multiple chart of accounts.

Rollups ending in Type and Group are system wide codes, such as Location Type, or Function Group. They allow a cross-departmental aggregation of element codes.

Fund Accounting Elements

- Fund
- Object
- Revenue Source
- Balance Sheet Account

Organizational Elements

- Centralized
- Decentralized

Budgeting Elements

- Appropriation Unit

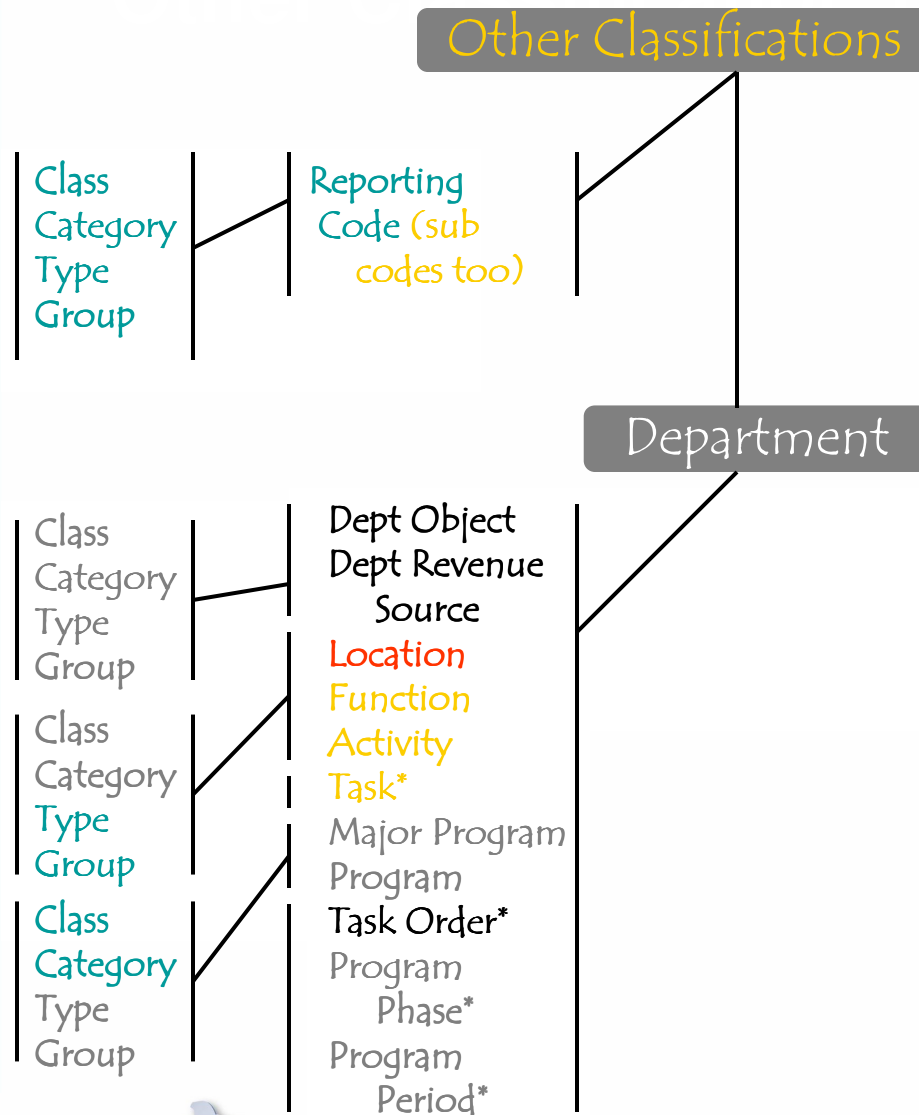**Keyed by Department**

Other Classification Elements

- Location
- Activity
- Function
- Reporting Code
- Department Object
- Department Revenue Code
- Task
- Task Order

Cost Accounting Elements

- Major Program
- Program
- Phase
- Program Period

Other Classifications

| Class |
| Category |
| Type |
| Group |

Reporting Code (sub codes too)

Department

| Class |
| Category |
| Type |
| Group |

Dept Object
Dept Revenue Source
Location
Function
Activity
Task*

| Class |
| Category |
| Type |
| Group |

Major Program
Program
Task Order*

| Class |
| Category |
| Type |
| Group |

Program Phase*
Program Period*

Overview

Determine which elements can complement management control and reporting. Determine which elements to release to the organization at large. Determine any rules for usage and/or desired coding schema. Setup & deploy.

Note that Department level elements provide decentralized reporting & control options for flexibility.

Using these codes on accounting transactions provides additional tracking information.

Cost Accounting elements are introduced here because they are keyed by Department.

<u>Color Key:</u>
Teal: Centralized elements
Gold: Sub codes available
Red: County vs. Group & sub code available
*: No rollups

ADVANTAGE 2.2			ADVANTAGE 3		
Element Name	**Length**	**Key**	**Element Name**	**Length**	**Key**
			CAFR Major Activity Type	4	
			CAFR Minor Activity Type	4	
			CAFR Activity Unit	4	
Activity Class	4	FY	Activity Class	4	FY, Dept
Acitivity Category	4	FY	Activity Category	4	FY, Dept
Acitivity Type	4	FY	Activity Type	4	FY
Activity Group	2	FY	Activity Group	4	
Activity	4	FY	Activity	4	FY, Dept
			Sub-Activity	4	FY, Dept, Actv
Function Class	4	FY	Function Class	4	FY, Dept
Function Category	4	FY	Function Category	4	FY, Dept
Function Type	4	FY	Function Type	4	FY
Function Group	2	FY	Function Group	4	
Function	4	FY	Function	4	FY, Dept
			Sub Function	4	FY, Dept, Func
			Reporting Class	4	FY
			Reporting Category	4	FY
			Reporting Type	4	
			Reporting Group	4	
Reporting Category	4	FY, Agency	Reporting Code	10	FY
			Sub Reporting Code	4	FY, Rept
			Department Object Class	4	FY
			Department Object Category	4	FY
			Department Object Type	4	FY
			Department Object Group	4	FY
			Department Object	4	FY
			Department Revenue Source Class	4	FY
			Department Revenue Source Category	4	FY
			Department Revenue Source Type	4	FY
			Department Revenue Source Group	4	FY
			Department Revenue Source	4	FY
			Location Class	3	
			Location Category	4	
			Location Type	4	Dept
			County	3	Dept
			Location	4	Dept
			Sub Location	4	Dept, Location

Mapping Other Classification Elements

Cost Accounting Elements

Cost Accounting tracks accounting events associated with special purposes such as:

- Externally funded grants or projects & related indirect cost capture & billing to reclaim those costs
- Service delivery cost tracking
- Internal customer billing for projects

Cost Accounting COA elements & functions are fully integrated with numerous business areas.

Cost Accounting COA elements include the following codes & related rollups:

- Major Program
- Program
- Phase
- Program Period

Fund Accounting Elements

- Fund
- Object
- Revenue Source
- Balance Sheet Account

Organizational Elements

- Centralized
- Decentralized

Budgeting Elements

- Appropriation Unit
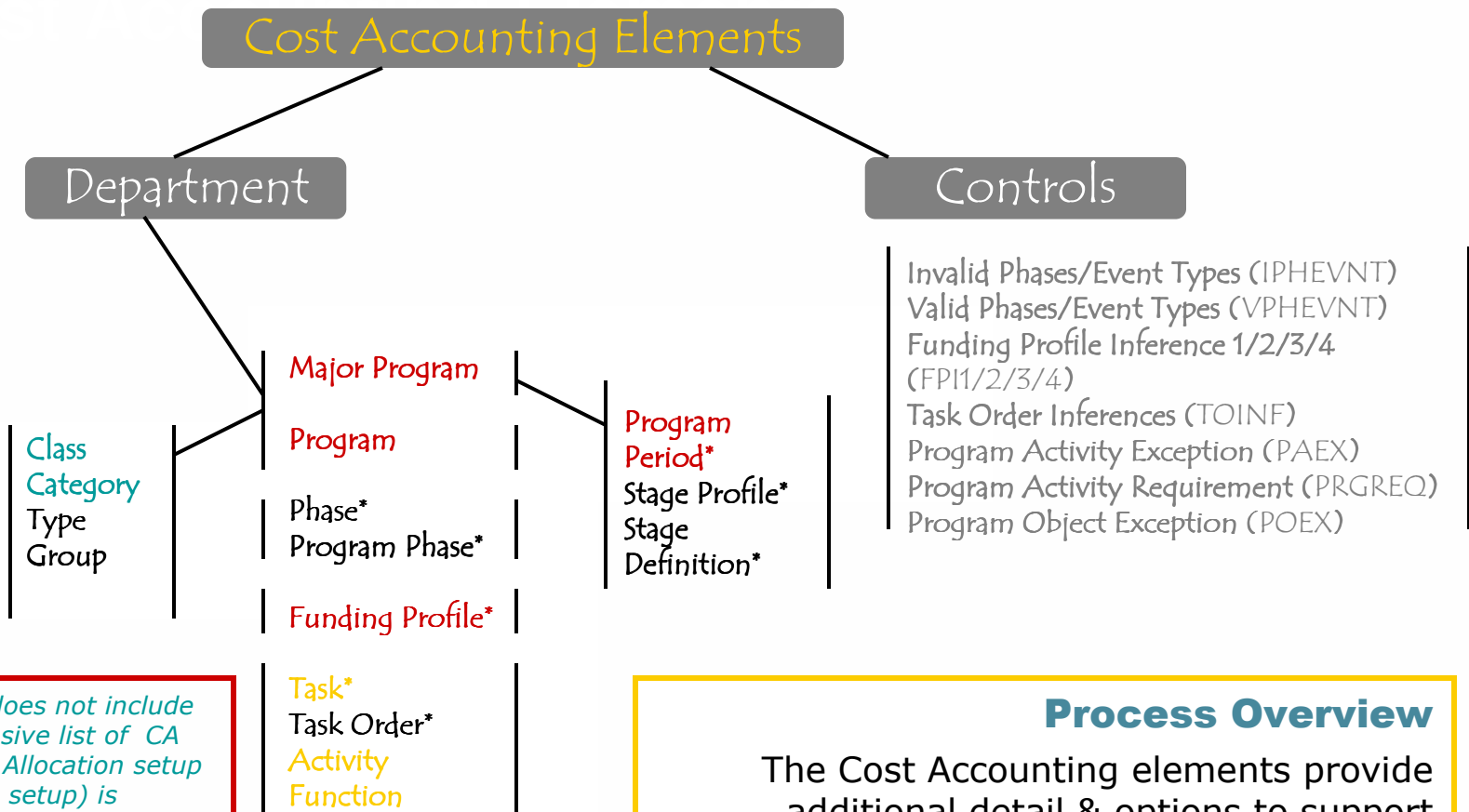
Other Classification Elements

- Location
- Activity
- Function
- Reporting Code
- Department Object
- Department Revenue Code
- Task
- Task Order

Cost Accounting Elements

- Major Program
- Program
- Phase
- Program Period

Cost Accounting Elements

Department

Controls

Class
Category
Type
Group

Major Program

Program

Phase*
Program Phase*

Funding Profile*

Task*
Task Order*
Activity
Function

Program
Period*
Stage Profile*
Stage
Definition*

Invalid Phases/Event Types (IPHEVNT)
Valid Phases/Event Types (VPHEVNT)
Funding Profile Inference 1/2/3/4
(FPI1/2/3/4)
Task Order Inferences (TOINF)
Program Activity Exception (PAEX)
Program Activity Requirement (PRGREQ)
Program Object Exception (POEX)

This course does not include a comprehensive list of CA tables. Cost Allocation setup (include COA setup) is covered in the CA course series.

Process Overview

The Cost Accounting elements provide additional detail & options to support external & internal cost control, capture, billing, & reporting. Budgeting, grouping, & controls by period provide additional flexibility.
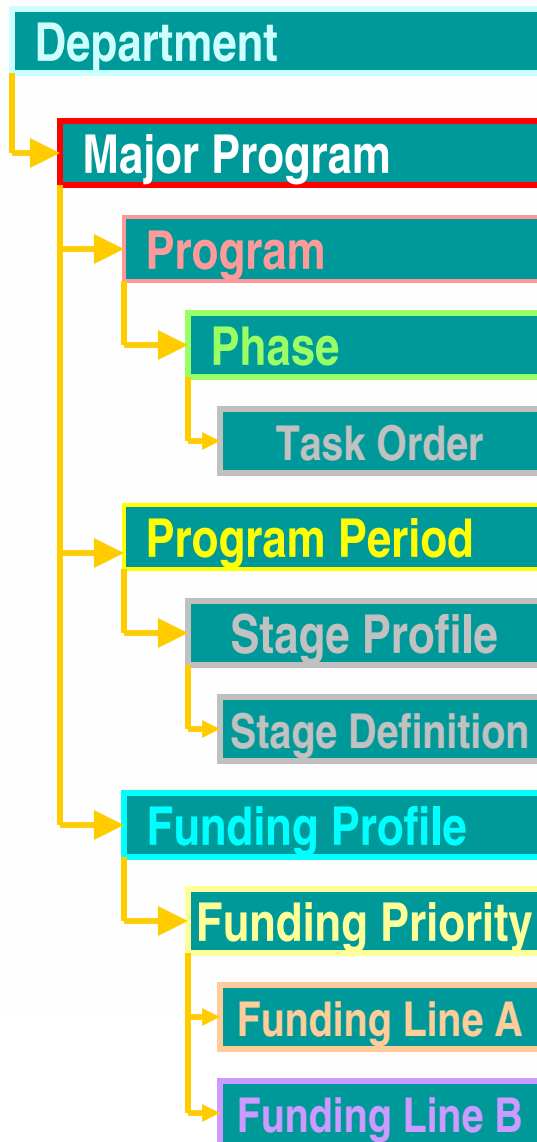
Red: Primary Cost Accounting elements
Teal: Centralized elements
Gold: Sub codes available
*: No rollups

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Major Program Structure

Department

Major Program

Program

Phase

Task Order

Program Period

Stage Profile

Stage Definition

Funding Profile

Funding Priority

Funding Line A

Funding Line B

Notes

- Major Program is departmental!
  - Program rolls up to Major Program, but must also be unique by Department (not by Department / Major Program combination)
- General Options on Major Program are applied to all Programs within it – a major setup consideration
- Several other options can be superseded at one or more lower levels (e.g. effective dates, Reimbursement Status, Highway Project data)
- Phase codes are defined by department but may be used on many Programs.
- Major Program hierarchy is 1:x.
- Although MP, Prog, Phase, etc are considered COA tables, they have additional options and controls not seen on other COA tables.
- Setup steps and details are covered in the Cost Accounting elearning course.

Verify/Add necessary COA setup

- Verify/add Fund Accounting codes

- Verify/change Fund Accounting code business rule configuration

- Verify/add Appropriation codes

- Verify/add organizational structure and hierarchy

- Verify/add COA control tables: inferences, valid/invalid combination tables, etc.

- Introduction
- **General Configuration**
  - Chart of Accounts
  - General Accounting – SOPT, SPEC, Balances, JLCTRL
  - Budget Controls
- Configuration Touching Document-level Setup
- Miscellaneous configuration of interest
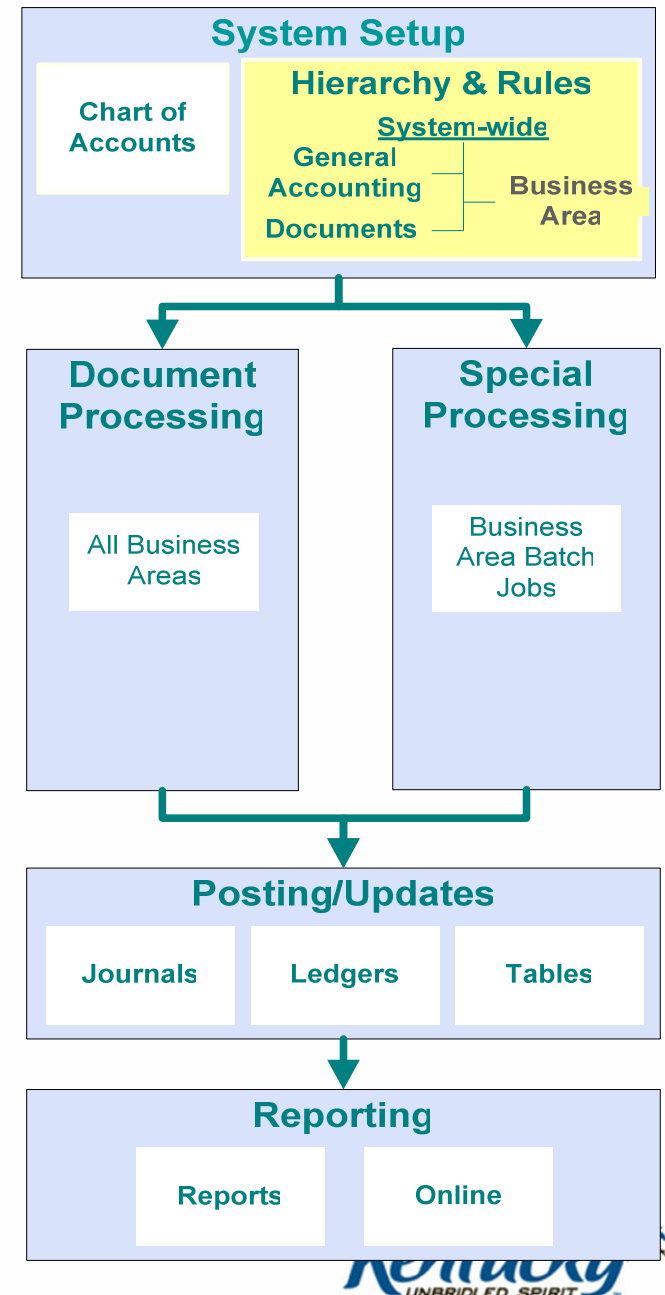- Ad hoc discussion and exploration

General Accounting Setup

Configuring General Accounting tables is an exercise in system-wide configuration along with business area configuration as global rules & defaults are grouped into this business area.

ADVANTAGE functionality should be reviewed & mapped to meet centralized/ decentralized control needs as well as to accommodate the needs of other business areas to be implemented.

Increased configuration capability, requiring more effort initially, contributes to the achievement long-term project & management goals. Some include:

➢ Efficiency & faster turnaround on transaction processing

➢ Reduced data entry & keying errors

➢ Decentralized tasks once handled centrally or managed via complex approvals

➢ Better control

System Setup

Chart of Accounts

Hierarchy & Rules
System-wide
General Accounting
Business Area
Documents

Document Processing

All Business Areas

Special Processing

Business Area Batch Jobs

Posting/Updates

Journals	Ledgers	Tables

Reporting

Reports	Online

Setup Areas

SYSTEM WIDE
System Options
Special Accounts
Events
Posting
Budget Staging

ACCOUNTING
Fund
Cash
Balance Sheet

OTHER
Dates
Journals & Ledgers

DOCUMENT
Category, Type, Code
Allowed Event Types
Referencing & Tolerances
Auto Future Triggering

GA Configuration

During implementation, Advantage options, controls, defaults, and inferences are configured in sequence. In general, this process begins with central elements and controls, is followed by decentralized elements and controls, then the rules and options within the business areas.

The graphic on the right illustrates the General Accounting setup sequence.

The graphic on the left illustrates the topical sequence of our course.

NOTE: Business Area Setup is covered in other AMS courses.

Setup Sequence

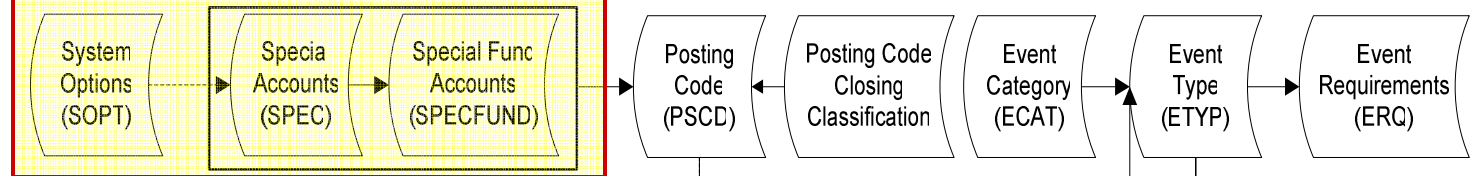**Dates**
↓
System Wide Controls
↓
Accounting
↓
Document
↓
Journals & Ledgers
↓
Business Area Setup
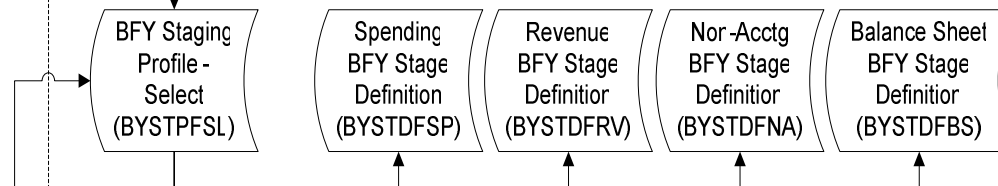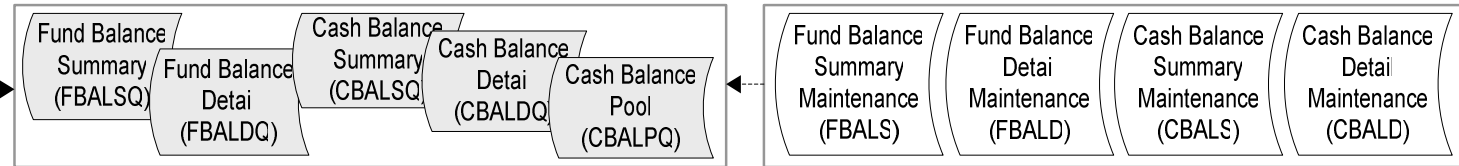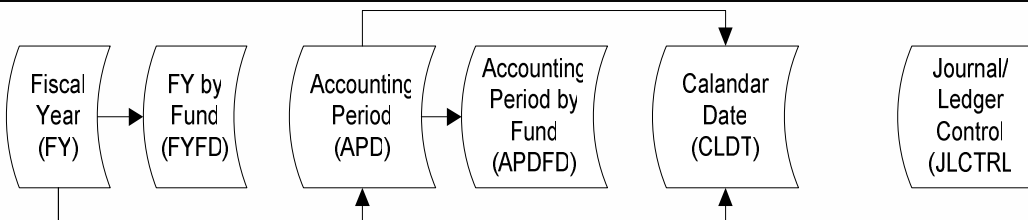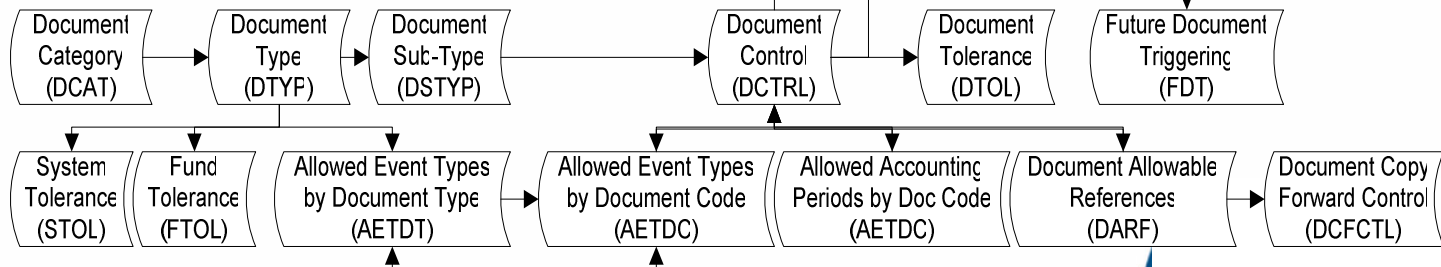
System Options (SOPT)

Highlights

▸ The SOPT table provides a set of options & controls that guide accounting activities for the different functional areas.

▸ Options & controls are grouped by business area page within one table

▸ Custom configuration capability is extensive and flexible. Also provides greater override capability than before.

▸ Keyed by FY to differentiate controls and options from year to year

▸ All options described in User's Guide!

General Options

▸ Reporting option (GASB, FASB, NACUBO)

▸ Expanded Close & Roll options (w/fund override)

▸ Commodity Code Registration Levels (class, group, item, detail)

▸ Max number of accounting lines for generated documents

Expense Options

▸ Disbursement Penalties

▸ Backup Withholding

▸ Interest on Disbursements

▸ Payment Intercept Transfers

▸ Escheat Disbursements

▸ Disbursement Option (e.g. Check, Warrant, EFT)

Revenue Options

▸ Deposit reconciliation

▸ Automatic Net Credit Balance

▸ Write-off Methods & Options

▸ Posting Priorities, w/override

▸ Past Due Days settings, overrides, & penalties

▸ Finance Charges

▸ NSF Charges

▸ Intercepts

▸ Refunds

▸ Billing Thresholds

Fixed Asset Options

▸ Automatic Shell Generation via payment requests

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Note: These are examples drawn from the larger set of SOPT options & controls

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Controls

Close
Expense
General
Revenue
Fixed Assets

SOPT

System Options

Expense Summary

✓	Fiscal Year
✓	2005
	2004
	2003
	2002
	2001

First Prev Next Last

Highlights

▸ Keyed by FY to differentiate controls and options across years

▸ One table groups options & controls by business area page

▸ Extensive, flexible options & controls

▸ Most settings map across from ADV2

Expense Details
Save Undo Delete Insert Copy Paste   Search

Fiscal Year : 2005
Calculate Penalties on Disbursements : ☑
Penalty Lag Days : 30
Penalty Lag Percentage : 5.00%
Backup Withholding : ☑
1042-S Withholding : ☐
Backup Withholding Rate : $31.00
System Payment Lag : 10
Number of Prenote Days : 14
Recalculate Tax from Discount : ☐
Calculate Interest on Disbursements : ☑
Payment Intercept : ☑
Stale Date Disbursements : ☑
Stale Days : 180

Escheat Disbursements : ☐
Escheat Days : 365
Disbursement Interest Lag Days : 30
Daily Disbursement Interest Rate : 0.00%
Partial Payment Invoice Allowed : ☑
Print $0 Amount Check : ☑
Disbursement Option : Checks/EFT
PR Update Inventory Flag : ☐
External Disbursement : ☐
Weekly Warrant Hold Reason : 1

User Hold

Vendor Default Disbursement Format : REG
Vendor Default EFT Format :

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Special Accounts

Note: subset of SPEC accounts listed

Highlights

- The SPEC table defines the default set of accounts used to automatically generate the offsetting balance sheet account entry for most transactions.
- Options & controls are grouped by business area page within one table
- Fund overrides supported
- Inference order definitions supported
- Keyed by FY to differentiate default accounts and facilitate planning/changes from year to year
- All default accounts defined in the Financial User Guide!

Miscellaneous Accounts

- FASB Unrestricted/Restricted (Temp/Perm) Assets
- Master Closing Object & Revenue Source
- Retained Earnings & Fund Balance

Accounts Payable Accounts

- Payables: Disbursements, Accounts, Warrants, Retainage, Withholding, Intercept, Stale Dated, Escheat, Use Tax
- Funds: Warrant Clearing, Payroll Clearing
- Other: Expenditure Offset, Undistributed Receipts, Intercept Cash, …

Procurement Accounts

- Due From / Due To
- Prepaid Expense
- Reserves for memo & non-memo pre-encumbrances & encumbrances

Revenue Accounts

- Earned Receivables
- Billed: Unearned & earned Receivables, unearned & earned revenue, deposits receivable, deposits, …
- Collected: Unearned revenue, deposits
- Bad Debt Expense & Allowance for Bad Debt
- Credit Card Fee & NSF Check Charge Revenue
- Vendor Refunds & Expenditure Holding
- Write-offs & Collections
- Overpayments

Fixed Asset Accounts

- General Capital Assets Fund
- Gain/Loss revenue source & objects
- Depreciation Expense
- Fixed Asset Due To & Due From
- Memo Contra-Asset BSA
- Sale Revenue

Highlights

▸ Keyed by fiscal year to support planning & changes

▸ Extensive defaults with override capability used across all business areas. <u>Override flags point to SPECFUND.</u>

▸ Fund, Revenue Source, Billing Profile, and Fixed Asset Types supported by these defaults

▸ **Used by Posting Codes for offsetting entries – covered later.**

Close
✓ **Accounts Payable**
Procurement
Revenue
Miscellaneous
Fixed Assets

SPEC

Special Accounts

Accounts Payable Summary

Fiscal Year
✓ 2005
2004

First Prev Next Last

Accounts Payable Details
Save Undo Delete Insert Copy Paste   Search

Fiscal Year : 2005
Disbursement Option : Checks/EFT
Disbursements Payable : 2010
Disbursements Payable Sub Account : 001
Disbursements Payable Override : ☐
Accounts Payable : 2020
Accounts Payable Sub Account : 001
Accounts Payable Override : ☐
Warrants Payable : 2030
Warrants Payable Sub Account : 001
Warrants Payable Override : ☐
Warrant Clearing Fund : 100
Warrant Clearing Sub Fund : 01
Warrant Clearing Fund Override : ☐
Payroll Clearing Fund : 200
Payroll Clearing Sub Fund : 01
Payroll Clearing Fund Override : ☐

Backup Withholding On : Yes
Backup Withholding Payable : 2040
Backup Withholding Payable Sub Account : 001
Backup Withholding Payable Override : ☐
Intercept Application On : Yes
Intercept Payable : 2050
Intercept Payable Sub Account : 001
Intercept Payable Override : ☐
Intercept Cash Account : 1010
Intercept Cash Sub Account : 001
Intercept Cash Override : ☐
Retainage Payable : 2060
Retainage Payable Sub Account : 001
Retainage Payable Override : ☐
Stale Dated Payable : 2070
Stale Dated Payable Sub Account : 001
Stale Dated Payable Override : ☐

Escheat Payable : 2080
Escheat Payable Sub Account : 001
Escheat Payable Override : ☐
Use Tax Payable : 2090
Use Tax Payable Sub Account : 001
Use Tax Payable Override : ☐
Expenditure Offset : 3140
Expenditure Offset Sub Account : 001
Expenditure Offset Override : ☐
Undistributed Receipts : 2100
Undistributed Receipts Sub Account : 001
Undistributed Receipts Override : ☐
Cancelled Disbursements Payable : 2005
Disbursements Payable Sub Account : 001
Disbursements Payable Override : ☐

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Kentucky
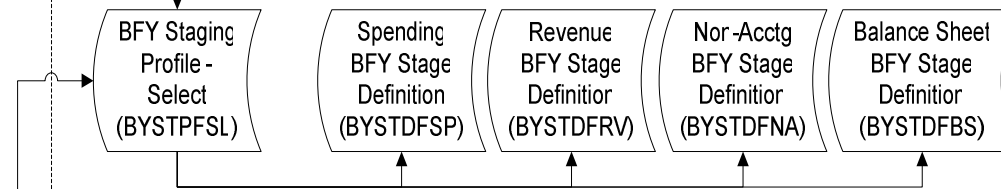UNBRIDLED SPIRIT

Verify/Add necessary SOPT & SPEC setup

- Verify/change SOPT settings

- Verify/change SPEC accounts for offsetting entries to be used by posting codes – which will we use for our hands-on document setup exercises?
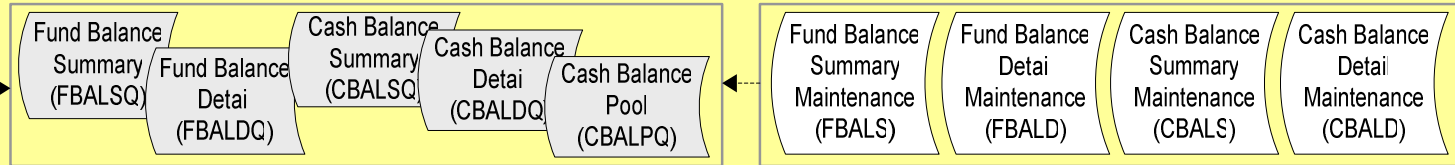
System Options, Special Accts, & Event Setup

- System Options (SOPT)
- Special Accounts (SPEC)
- Special Fund Accounts (SPECFUND)
- Posting Code (PSCD)
- Posting Code Closing Classification
- Event Category (ECAT)
- Event Type (ETYP)
- Event Requirements (ERQ)

Budget FY Staging

- BFY Staging Profile - Select (BYSTPFSL)
- Spending BFY Stage Definition (BYSTDFSP)
- Revenue BFY Stage Definition (BYSTDFRV)
- Non-Acctg BFY Stage Definition (BYSTDFNA)
- Balance Sheet BFY Stage Definition (BYSTDFBS)

Account Balances

- Fund Balance Summary (FBALSQ)
- Fund Balance Detail (FBALDQ)
- Cash Balance Summary (CBALSQ)
- Cash Balance Detail (CBALDQ)
- Cash Balance Pool (CBALPQ)
- Fund Balance Summary Maintenance (FBALS)
- Fund Balance Detail Maintenance (FBALD)
- Cash Balance Summary Maintenance (CBALS)
- Cash Balance Detail Maintenance (CBALD)

Other

- Fiscal Year (FY)
- FY by Fund (FYFD)
- Accounting Period (APD)
- Accounting Period by Fund (APDFD)
- Calendar Date (CLDT)
- Journal/ Ledger Control (JLCTRL)

Document Setup

- Document Category (DCAT)
- Document Type (DTYP)
- Document Sub-Type (DSTYP)
- Document Control (DCTRL)
- Document Tolerance (DTOL)
- Future Document Triggering (FDT)
- System Tolerance (STOL)
- Fund Tolerance (FTOL)
- Allowed Event Types by Document Type (AETDT)
- Allowed Event Types by Document Code (AETDC)
- Allowed Accounting Periods by Doc Code (AETDC)
- Document Allowable References (DARF)
- Document Copy Forward Control (DCFCTL)

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eMARS Management Administrative & Reporting System

Accounting Controls & Inquiries

System accounting controls & inquiries provide rules and information for fund balance, balance sheet accounts, and cash balances.

FBAL Controls:

‣ Fund balance BSA accounts

‣ Fund balance minimum & violation severity

‣ Include pending documents in balance?

CBAL Controls:

‣ Cash balance BSA accounts

‣ Cash balance minimum & violation severity

‣ Include pending cash and/or non-cash documents in balance?

‣ Include 'accepted non-cash' postings in balance?

	Controls	Inquiries
Fund Balance	Fund Balance Summary Maintenance Fund Balance Detail Maintenance	Fund Balance Summary Fund Balance Detail
Cash Balance	Cash Balance Summary Maintenance Cash Balance Detail Maintenance	Cash Balance Pool Cash Balance Summary Cash Balance Detail
Balance Sheet Account		BBALS Balance Sheet Balance ITD Summary BBALD Balance Sheet Balance ITD Detail BBALFY Balance Sheet Balance FY Detail

Fund Balance Summary **FBALSQ**

Fund	Name	Fund Balance	Adjusted Fund Balance	Available Fund Balance
0089				
100				
✓ 101				
102				
200				
201				
721				
900				
920				
998				

First Prev N

Fund Balance Detail **FBALDQ**

Fund	Sub Fund	Fund Balance	Adjusted Fund Balance	Available Fund E
0001	BLNK	$5,000,000.00	$54,966,460.00	$54,966
0030	BLNK	$5,000,000.00	$14,999,850.00	$14,999
✓ 101	BLNK	$20,000,000.00	$69,344,000.00	$69,244
201	BLNK	$0.00	$9,029,322.81	$9,029
998	BLNK	$0.00	($78,623.99)	($78,

First Prev Next Last

Search

Search

Fund : 101

Sub Fund : BLNK

Fund Balance : $20,000,000.00

Pending Revenue Increases : $0.00
Pending Revenue Decreases : $0.00
Pending Expense Increases : $675,000.00
Pending Expense Decreases : $0.00

Revenue Account Balance : $50,020,000.00

Expense Account Balance : $1,000.00

Adjusted Fund Balance : $69,344,000.00

Fund Balance Minimum : $100,000.00

Available Fund Balance : $69,244,000.00

Fund Balance Detail Maintenance Fund Balance Summary

Highlights

- Posting code settings determine update
- Sets rules for monitoring fund balance:
  - Fund balance minimum & error level
    - Levels: Error (reject), override required, warning, no error
  - Set balance control level: Fund (summary) or Sub-Fund (detail)
- Pending transactions included?

Fund Balance Summary Maintenance **FBALS**

Save Undo Delete Insert Copy Paste   Search   First Prev Next Last

Fund : 101   Pending Revenue Increases : ☐

Fund Balance Detail Maintenance **FBALD**

Red: difference between 'summary' and 'detail' pages

Save Undo Delete Insert Copy Paste   Search   First Prev Next Last

*Fund : 101

General Fund

*Sub Fund : BLNK

Pending Revenue Increases : ☐
Pending Revenue Decreases : ☐
Pending Expense Increases : ☑
Pending Expense Decreases : ☑

Fund Balance Minimum : $100,000.00

Fund Balance Error Severity : Warning

Balance Control : Summary

Summary
Detail

Fund Balance Detail Fund Balan   Balance Summary Maintenance

Fund	Sub Fund	BS		e	Sub BSA	Name	Current Balance
✓ 101	BLNK	3020		Fund Bal	BLNK		$20,000,000.00

Delete Insert   Copy Paste   First Prev Next Last

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eMAKS

Cash Balance Summary

CBALSQ

Fund	Name	Cash Balance	Adjusted Cash Balance	Available Cash B
0030				
0088				
0089				
100				
101 ✓				
102				
201				
400				
721				
920				

First Prev Next Last

First Prev

Search

Cash Balance Detail

CBALDQ

Fund	Sub Fund	Cash Balance	Adjusted Cash Balance	Available
0030	BLNK	$15,000,000.00	$15,000,000.00	
0088	BLNK	$0.00	$0.00	
0089	BLNK	$0.00	$0.00	
100	BLNK	$0.00	$0.00	
101 ✓	BLNK	$70,099,000.00	$70,099,000.00	

First Prev Next Last

Highlights

‣ Posting code settings determine update
‣ Sets rules for monitoring fund balance:
  ‣ Cash balance minimum & error level
    ‣ Levels: Error (reject), override required, warning, no error
  ‣ Set balance control level: Fund Type (pool), Fund (summary) or Sub-Fund (detail)
  ‣ Pending or non-cash transactions included?

CBALPQ fields by Fund Type

Fund : 101

Sub Fund : BLNK

Cash Balance : $70,099,000.00

Pending Increase Non-Cash : $0.00
Pending Decrease Non-Cash : $675,000.00
Pending Increase Cash : $0.00
Pending Decrease Cash : $0.00
Accepted Increase Non-Cash : $0.00
Accepted Decrease Non-Cash : $0.00

Adjusted Cash Balance : $70,099,000.00

Cash Balance Minimum : $75,000.00

Available Cash Balance : $70,024,000.00

Cash Balance Detail Maintenance   Cash Balance Summary

Pending
Pending
Accepted
Accepted

Cash Balance Summary Maintenance

CBALS

Save Undo Delete Insert Copy Paste   Search   First Prev Next Last

Fund : 101 ▶   Pending Increase Cash ☑

Cash Balance Detail Maintenance

CBALD

Red: difference between 'summary' and 'detail' pages

Save Undo Delete Insert Copy Paste   Search   First Prev Next Last

*Fund : 101 ▶

General Fund

*Sub Fund : BLNK ▶

Cash Balance Minimum : $75,000.00

Cash Balance Error Severity : Overrideable Error ▼

*Balance Control : Summary ▼

Pending Increase Cash : ☑
Pending Decrease Cash : ☑
Pending Increase Non-Cash : ☐
Pending Decrease Non-Cash : ☐
Accepted Increase Non-Cash : ☑
Accepted Decrease Non-Cash : ☑

Summary
Detail
Pool

Cash Balance Detail   Cash Balance   Balance Summary Maintenance

Fund	Sub Fund	BS		Sub BSA	Name	Current Balance
101 ✓	BLNK	1010	BS	BLNK ▶		$70,099,000.00

Delete Insert   Copy Paste   First Prev Next Last

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Cash Bala...

Cash Balance Detail Maintenance   Cash Balance Summary

ITD Balance Sheet Summary

BBALS

	Fund	Name	BSA	Name	BSA Type	Balance
✓	101	Genera				
	101	Genera				
	101	Genera				
	998	GCA				
	998	GCA				
	998	GCA				
	998	GCA				
	998	GCA				
	998	GCA				

First Prev Next Las

Search

Fund : 101

Gen

BSA : 101

Cas

BSA Type : Ass

Cash Balance Sum

ITD Balance Sheet Detail

BBALD

Menu Quic

	Fund	Name	Sub Fund	Name	BSA	Name	Sub BSA	Name	BSA Type	Balance
✓	101	General Fund	BLNK		1010	Cash - BS	BLNK		Asset	$70,099,000.00
	101	General Fund	BLNK		1050	Bill Earn Recv	BLNK		Asset	$0.00
	101	General Fund	BLNK		3020	Fund Bal	BLNK		Equity	($20,000,000.00)
	998	GC								
	998	GC								

First Prev Nex

Search

Fund :

Sub Fund :

BSA :

Sub BSA :

BSA Type :

Cash Balance

Fiscal Year Balance Sheet Detail

BBALFY

Menu Quick S

	Fiscal Year	Fund	Fund Name	Sub Fund	Sub Fund Name	BSA	BSA Name	Sub BSA	Sub BSA Name	Balance
✓	2005	101	General Fund	BLNK		1010	Cash - BS	BLNK		$70,099,000.00
	2005	998	GCA	BLNK		1160	Assets - E	001	Assets - Equip	$393,000.00
	2005	998	GCA	BLNK		1161	Accum Depr - E	001	Acc Depr-Equip	($6,623.99)
	2005	998	GCA	BLNK		1210	CIP	001	Cnstr in Prog	$1,000.00
	2005	998	GCA	BLNK		3900	Net Asset Adj	001	Net Adj Asset	($466,000.00)

First Prev Next Last

Search

Fiscal Year : 2005   Begining Balance : $70,000,000.00

Fund : 101   Debit Amount : $100,000.00

General Fund   Credit Amount : $1,000.00

Sub Fund : BLNK   Balance : $70,099,000.00

BSA : 1010

Cash - BS

Sub BSA : BLNK

BSA Type : Asset

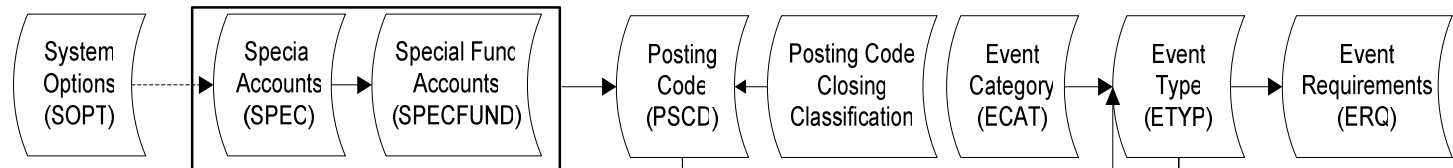ITD Balance Sheet Detail   ITD Balance Sheet Summary

Highlights

▸ Inquiry tables that monitor balance sheet account balance

▸ Updated by transaction processing

▸ Set up not required

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Verify/Add necessary Fund & Cash Balance controls
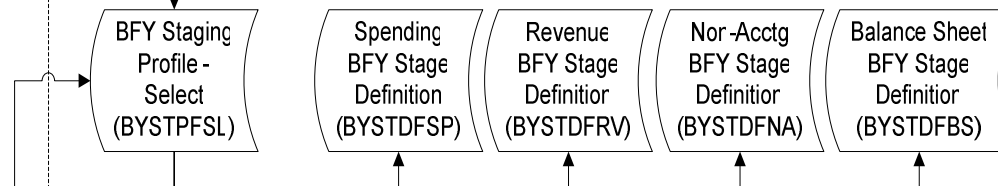
- Verify/change Fund Balance controls
  - Will controls be set at detail or summary levels?
- Verify/change Cash Balance controls
  - Will controls be set at the detail, summary, and/or pool levels

System Options, Special Accts, & Event Setup

- System Options (SOPT)
- Special Accounts (SPEC)
- Special Fund Accounts (SPECFUND)
- Posting Code (PSCD)
- Posting Code Closing Classification
- Event Category (ECAT)
- Event Type (ETYP)
- Event Requirements (ERQ)

Budget FY Staging

- BFY Staging Profile - Select (BYSTPFSL)
- Spending BFY Stage Definition (BYSTDFSP)
- Revenue BFY Stage Definition (BYSTDFRV)
- Non-Acctg BFY Stage Definition (BYSTDFNA)
- Balance Sheet BFY Stage Definition (BYSTDFBS)

Account Balances

- Fund Balance Summary (FBALSQ)
- Fund Balance Detail (FBALDQ)
- Cash Balance Summary (CBALSQ)
- Cash Balance Detail (CBALDQ)
- Cash Balance Pool (CBALPQ)
- Fund Balance Summary Maintenance (FBALS)
- Fund Balance Detail Maintenance (FBALD)
- Cash Balance Summary Maintenance (CBALS)
- Cash Balance Detail Maintenance (CBALD)

Other

- Fiscal Year (FY)
- FY by Fund (FYFD)
- Accounting Period (APD)
- Accounting Period by Fund (APDFD)
- Calendar Date (CLDT)
- Journal/Ledger Control (JLCTRL)

Document Setup

- Document Category (DCAT)
- Document Type (DTYP)
- Document Sub-Type (DSTYP)
- Document Control (DCTRL)
- Document Tolerance (DTOL)
- Future Document Triggering (FDT)
- System Tolerance (STOL)
- Fund Tolerance (FTOL)
- Allowed Event Types by Document Type (AETDT)
- Allowed Event Types by Document Code (AETDC)
- Allowed Accounting Periods by Doc Code (AETDC)
- Document Allowable References (DARF)
- Document Copy Forward Control (DCFCTL)

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Journal & Ledger Controls

Highlights

▸ 10 Journals delivered
  - ▸ Record complete posting details
  - ▸ Are updated and can be queried real-time (unless set for asynchronous posting)
  - ▸ Configuration determines which accounting entries are posted to a given journal

▸ 10 preconfigured Ledgers delivered
  - ▸ Provide journal summarization
    - ▸ Accounting ledgers: Accounting Period (LAPDACTG), Fiscal Year (LFYACTG), Budget Fiscal Year (LBFYACTG), Inception-To-Date (LITDACTG)
    - ▸ Cost Accounting Ledgers: Accounting Period (LAPDCA), Fiscal Year (LFYCA), Budget Fiscal Year (LBFYCA), Inception-To-Date (LITDCA)
    - ▸ Systems Assurance Ledger
  - ▸ Can be configured to include as much or as little journal detail as desired

▸ 10 non-configured ledgers also provided with delivery and others that can be built

▸ Accounting Ledger Query (JLACTGQY) allows users to view and query the Accounting Ledger

Examples

Delivered Journals:

▸ Accounting Journal (JACTG) (6 assoc. ledgers)
▸ Cost Accounting Journal (JCA) (4 assoc. ledgers)
▸ 1099 Journal (J1099)
▸ Cash Journal (JCASH)
▸ Internal Journal (JINT)
▸ Budgeting Journal (JBUD)
▸ Fixed Asset Accounting Journal (JFAAJ)
▸ Fixed Asset Component Journal (JFACJ)
▸ BFY Not Equal FY Journal (JBFYNTFY)
▸ Commodity Journal (no direct view yet)

Ledger Summarization Controls:

▸ Document header details
▸ Event & posting pair details
▸ Accounting line details at any desired level
  - ▸ Organization elements
  - ▸ [Element]
  - ▸ [Element] Class
  - ▸ [Element] Category
  - ▸ [Element] Type
  - ▸ [Element] Group
  - ▸ CAFR (major/minor, group/type)
  - ▸ Sub-[Element]

Journal/Ledger Control Detail

JLCTRL

	Journal/Ledger ID	Type of File	Active	Journal/Ledger Data Object Name	Journal Data Object Name to Sum from
	1	Journal	true	JRNL_ACTG	
✓	2	Journal	true	JRNL_CA	
	3	Journal	true	JRNL_1099	
	4	Journal	true	JRNL_COMM	
	5	Journal	true	JRNL_INT	
	6	Journal	true	JRNL_BFYNOTFY	
	7	Journal	true	JRNL_CASH	
	8	Ledger	true	LDGR_ITD_ACTG	JRNL_ACTG
	9	Ledger	true	LDGR_BFYTD_ACTG	JRNL_ACTG
	10	Ledger	true	LDGR_FYTD_ACTG	JRNL_ACTG

First Prev Next Last

Configuration Points
▸ Posting Code filter
▸ Other Data criterion

Save Undo Delete Insert Copy Paste

▸General Information
▸Summarization (for Ledgers)
▸Archival Information
▸Filter

▼General Information

Journal/Ledger ID : 2

Name : Cost Accounting Journal

Short Name : Cost Actg Jrnl

Type of File : Journal

Active : ☑

Posting Code Types for Selection : All

Journal/Ledger Data Object Name : JRNL_CA

Description : Anything with a program code gets written to this journal no matter the posting code

All
1099
Accounting
Cash
Fixed Asset

Available for Archive : ☐
Cost Accounting Specific : ☑
Commodity Specific : ☐
Internal Specific : ☐
BFY Not Equal FY Specific : ☐

Last Input Date :
Last Archive Date :

Fixed Asset Specific : ☐
Component Specific : ☐
Budget Specific : ☐

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Journal/Ledger Control Detail

JLCTRL

	Journal/Ledger ID	Type of File	Active	Journal/Ledger Data Object Name	Journal Data Object Na
	1	Journal	true	JRNL_ACTG	
	2	Journal	true	JRNL_CA	
	3	Journal	true	JRNL_1099	
	4	Journal	true	JRNL_COMM	
	5	Journal	true	JRNL_INT	
	6	Journal			
	7	Journal			
✓	8	Ledger			
	9	Ledger			
	10	Ledger			

First Prev Next Last

Save Undo Delete Insert Copy Past

▶General Information

▶Summarization (for Ledgers)

▶Archival Information

▶Filter

Configuration Points

▸ Ledgers may be incrementally updated or fully regenerated.

▸ Changes to summary details requires that the ledger be fully regenerated.

▼Summarization (for Ledgers)

Journal to Summarize from : 1

Accounting Jrnl

Journal Data Object Name to Sum from : JRNL_ACTG

Document Category :	☐
Document Type :	☐
Document Code :	☐
Document Record Date :	☐
Budget Fiscal Year :	☐
Fiscal Year :	☐
Accounting Period :	☐
Fiscal Quarter :	☐
Bank Account :	☐
Event Type :	☐
Event Category :	☐
Posting Pair :	☐
Posting Code :	true
BS Account Type :	true
Real Account Level :	Fund and BSA levels

Batch Catalog

▼ Financial
  ▶ Accounts Receivable
  ▶ Accounts Payable
  ▶ Cost Accounting
  ▶ Matching Manager
  ▶ Procurement
  ▶ Utilities
  ▶ Fixed Asset
  ▶ Investment
  ▼ Posting
    ▼ Batch Jobs
      Ledger Engine
      Journal Engine
      Rebuild Journal
      Rebuild Ledger
      Identify and Archive

Fund :	Fund
Object :	Object
Revenue Source :	Revenue Source
BS Account :	BSA
Organizational :	Unit
IG Department :	Do Not Keep Any
IG Fund :	Do Not Keep Any
Appropriation :	Do Not Keep Any
Location :	Do Not Keep Any
Activity :	Do Not Keep Any
Function :	
Reporting :	
Department Object :	
...ent Revenue Source :	
Task :	
Task Order :	
Major Program :	
Program :	Do Not Keep Any
Phase :	Do Not Keep Any
Funding Profile :	Do Not Keep Any
Funding Priority :	Do Not Keep Any
Funding Line :	Do Not Keep Any
Staging Profile :	Do Not Keep Any
Program Period Code :	Do Not Keep Any

Do Not Keep Any
Keep All
Activity
Activity Class
Activity Category
Activity Type
Activity Group
CAFR Activity Unit
Major CAFR Activity Type
Minor CAFR Activity Type
Sub Activity

Journal/Ledger Control Detail

JLCTRL

Journal/Ledger ID	Type of File	Active	Journal/Ledger Data Object Name	Journal Data Object Name to Sum from
1	Journal	true	JRNL_ACTG	
✓ 2	Journal	true	JRNL_CA	
3	Journal	true	JRNL_1099	
4	Journal	true	JRNL_COMM	
5	Journal	true	JRNL_INT	
6	Journal	true	JRNL_BFYNOTFY	
7	Journal	true	JRNL_CASH	
8	Ledger	true	LDGR_ITD_ACTG	JRNL_ACTG
9	Ledger	true	LDGR_BFYTD_ACTG	JRNL_ACTG
10	Ledger	true	LDGR_FYTD_ACTG	JRNL_ACTG

First Prev Next Last

Save Undo Delete Insert Copy Paste   Search

▶General Information

▶Summarization (for Ledgers)

▼Archival Information

Number of Periods :

Type of Time Period :

▼Filter

Fund Filter :

Fund Filter Value :

Org Filter :

Org Filter Value 1 :

Org Filter Value 2 :

Configuration Points

▸ Define archiving criteria

▸ Define Fund and Organizational filtersfor a given journal or ledger, if applicable

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Verify/Add necessary Journal/Ledger controls

- Which journals will be used?

- Which ledgers will be used? Any custom?

  - What level of journal detail will be kept/summarized within each ledger?

- What filtering and/or archiving criteria might apply?

- Introduction
- **General Configuration**
  - Chart of Accounts
  - General Accounting – SOPT, SPEC, Balances, JLCTRL
  - Budget Controls
- Configuration Touching Document-level Setup
- Miscellaneous configuration of interest
- Ad hoc discussion and exploration

Budget Structure and Controls Setup

The budget structure is the highest level of control that can be set while the budget line within the budget transaction is the lowest. The sequence for set up is as follows:

1. System wide controls including updating the budget structure, budget tracking amounts, and central budget controls.

2. Fund controls for specific funds.

3. Budget level controls for each level within a budget structure.

4. Optional controls including budget reserves, posting code updates, allotments, and COA inferences.

5. Processing budget documents to establish the detailed budget lines and, optionally, adjust budget controls at the line level. (Budget documents are more fully addressed in Self-Guided Learning courses)

SYSTEM WIDE
Review and update budget structures, tracking amounts and budget controls

FUND CONTROLS
Setup fund-specific controls, if desired

BUDGET LEVEL
Setup level-specific update/posting controls and presence control

OPTIONAL CONTROLS
Setup allotments, reserves, verify/update posting codes, & use COA inferences, as needed

BUDGET LINE
Adjust controls at the line level

Budget Structure & Control Setup

There are several levels of control setup that must occur before budget documents can be entered, amended, or monitored.

We will review these controls from the highest level down to the lowest level to prepare for budget entry.

Budget controls and options covered in this course include:

- ‣ Budget Structure selection, supported by COA setup
- ‣ System Wide Controls
- ‣ Budget Level Controls
- ‣ Optional Budget Controls

System Wide Setup

- ‣ Budget Structures
- ‣ Chart of Accounts

System Wide Controls

- ‣ Budget Tracking Amounts
- ‣ Budget Controls
- ‣ Required Budget

Budget Controls

- ‣ Budget Structure Controls
- ‣ Fund Budget Controls
- ‣ Budget Level controls

Optional Budget Controls

- ‣ Allotment Options
- ‣ Reservations
- ‣ Posting Code Update
- ‣ COA Inference Tables
- ‣ Budget Linking

Process Overview

Before implementation, the delivered budget structures need to be reviewed. Identifying needed budget structures is a one-time setup that once determined by the organization will probably not change.

ADVANTAGE Financial delivers pre-defined budget structures. If a match is not found by the organization, a new budget structure can be created using AMS Design Studio (the Versata-based design tool).

Chart of Accounts (COA) elements are a key part of each budget structure. They help determine if a structure is centralized or decentralized and at what level(s) budgets are created.

Because of this relationship, the COA elements should be determined as the budget structure is determined. Key budget questions must be answered as part of the COA setup, e.g., at which levels do we need to budget, which elements do we want to use, etc.
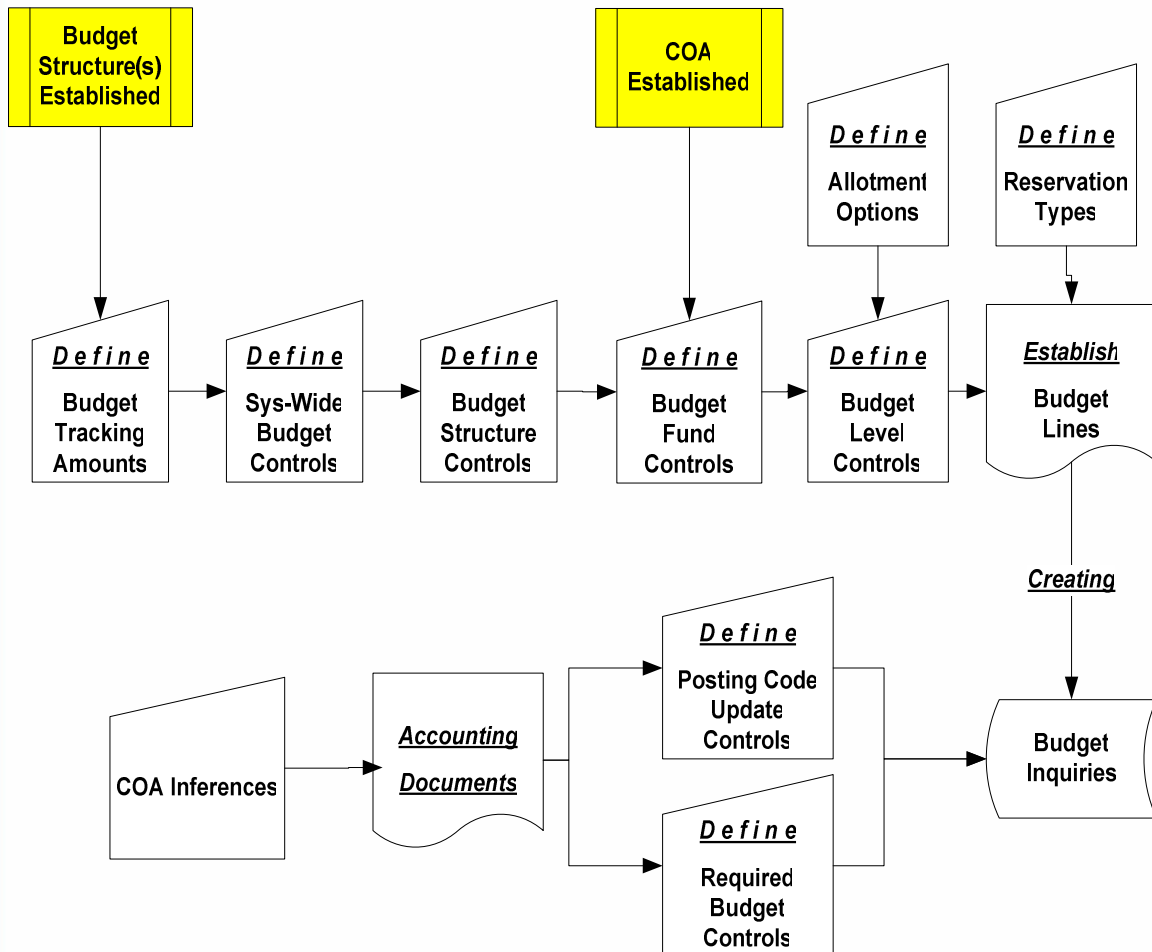
System Wide Controls

Settings on the system wide control tables are used by all the budget structures.

Tables to review and update include:

- Budget Tracking Amounts
  - —BUDTAM
- Budget Controls/ Administration
  - —BUDCON
  - —BCADM
- Required Budget Controls
  - —REQBUD

System Wide Setup

- Budget Structures
- Chart of Accounts

System Wide Controls

- Budget Tracking Amounts
- Budget Controls
- Required Budget

Budget Controls

- Budget Structure Controls
- Fund Budget Controls
- Budget Level controls

Optional Budget Controls

- Allotment Options
- Reservations
- Posting Code Update Controls
- COA Inference Tables
- Budget Linking

Process Overview

Budget tracking amount fields are the "buckets" used system-wide to track different kinds of activities such as budget modifications, accumulation of accounting transactions, and calculated amounts of transactions posted against a budget amount.

Formulas can be modified on the Budget Tracking Amounts (BUDTAM) table. However, if some of your requirements are not met by delivered buckets, new buckets, or formulas for existing buckets, can be developed.

System-wide budget controls are defined on the Budget Control Administration (BCADM) table. These are the default budget controls for all funds and all levels of budget structures. Guidelines set the transaction edits during processing of budget documents, i.e., how child levels for budget roll up to parent levels. Constraints set the rules for transaction edits during processing of accounting transactions.

After entries are set up on BCADM, the controls are applied system-wide using the Budget Control (BUDCON) Table.
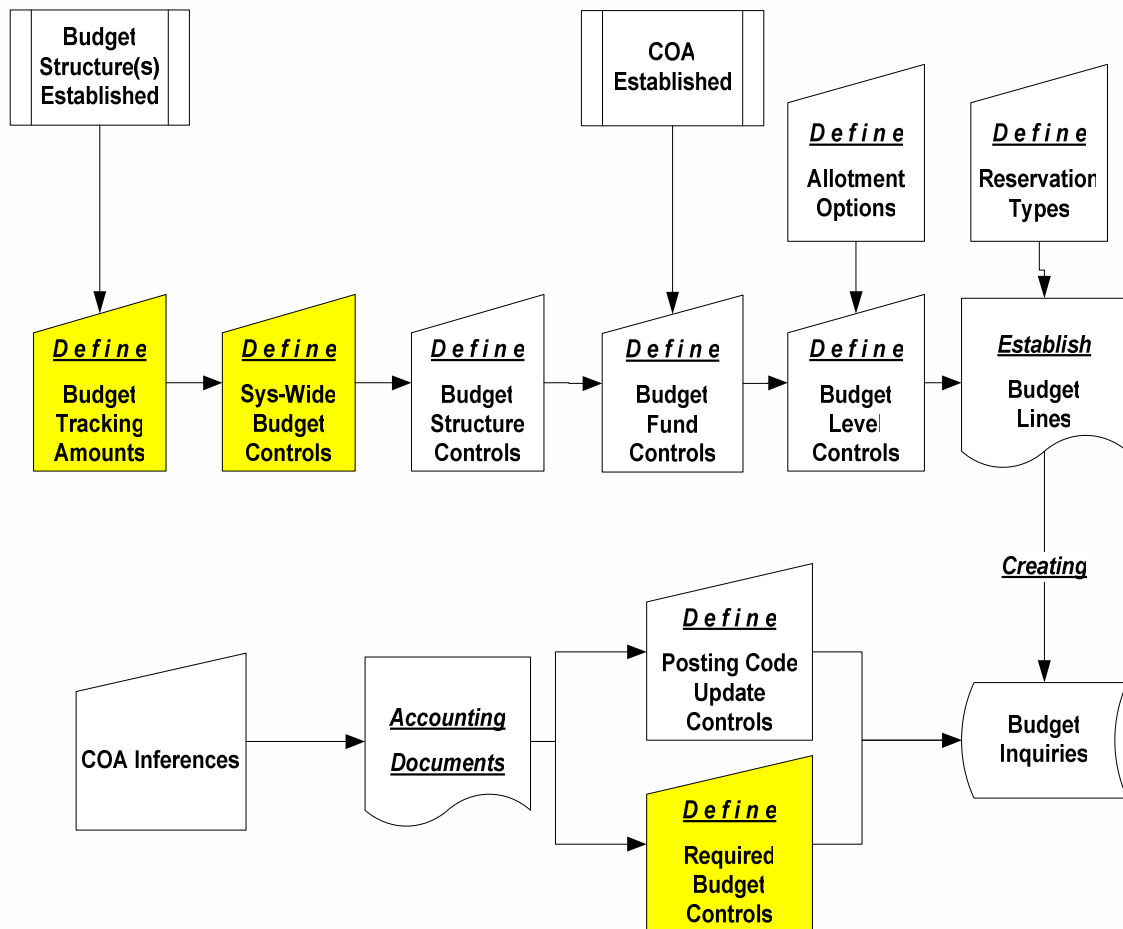
Budget Tracking Amounts

BUDTAM

Field ID	Field Name	Field Type
1	Adopted	Budget
2	Allocated	Budget
✓ 5	Original Budget	Budget
6	Current Budget	Budget
13	Encumbered	Expense

First Prev Next Last

Save Undo   Search

Field ID : 5

Field Name : Original Budget

Field Type : Budget

Formula ID : 1

Include Pending Decreases : ☐
Include Pending Increases : ☐

Original Budget 1
Adopted + Carry Forward + Awarded

Notes

▸ Posting codes (via the Event Type) determine which budget tracking amount is updated.

▸ Buckets (tracking amounts) are used by budget structures and displayed on budget query screens.

▸ Both calculated and stand-alone buckets are delivered. Stand-alone buckets are updated by documents.

▸ Review buckets and determine if you want to change field names or formula Ids (only for calculated buckets) or if you want to include pending increases or decreases with the amount (only for stand-alone buckets)

▸ If other buckets are needed, they may be created by Product Engineering.

▸ The Formulas may be created or edited on the Budget Formula Administration (BFADM) table. **Changing formulas prevents further posting to the bucket until a chain batch job is run to recalculate buckets**.

▸ Budget Systems Assurance, SA11 (version 3.4), verifies that records in the budget journal are in sync with stand-alone budget amounts recorded on all budget tables

Budget Formula Administration

BFADM

Formula ID	Formula Name	Formula	Field ID	Field Name
✓ 1	Original Budget 1	B1:B4+B21+	5	Original Budget
2	Original Budget 2	B1:B4+B21+B8-	5	Original Budget
3	Original Budget 3	B2:B4+B21+	5	Original Budget
4	Original Budget 4	B2:B4+B21+B8-	5	Original Budget
5	Current Budget 1	B5:B7-B3+B10+B9-	6	Current Budget
6	Current Budget 2	B5:B3+B10+B9-	6	Current Budget
7	Current Budget 3	B5:B42+B7-B3+B10+B9-	6	Current Budget
8	Current Budget 4	B5:B43+B7-B3+B10+B9-	6	Current Budget
9	Current Budget 5	B5:B44+B7-B3+B10+B9-	6	Current Budget
11	Budget Reserve 1	B5:P*	7	Budget Reserve

First Prev Next Last

Save Undo Delete Insert Copy Paste   Search

Formula ID : 1   Field ID : 5

Formula Name : Original Budget 1   Original Budget

Formula Definition : Adopted + Carry Forward + Awarded   Needs Initialization : ☐

Formula : B1:B4+B21+

Indicates that budget amounts need to be initialized/recalculated due to a formula change to avoid compromising the budget amounts

▸ Example above: B1:B4+B21+
Take 'Adopted' and 'Carry Forward' buckets (B1:B4) and add them together (+). Then take 'Awarded' (B21) and add it to the previous calculation (+).

Configuration Points

▸ Existing budget tracking amount formulas, for calculated budget buckets, may be modified or new ones created.

▸ The Formula ID must be unique. (Recommend 4 digits for new/ modified formulas to avoid upgrade overlays.)

▸ The Field ID corresponds to the Budget Tracking Amount field that the formula points to/is used for.

▸ The Formula field contains the actual formula, in reverse-polar notation (i.e., like how engineering calculators work)

   ▸ Syntax: B[Field ID] refers to the budget tracking amount field being used as part of the calculation.

   ▸ Example: B1 = Adopted budget bucket, B2 = Allocated, B21 = Awarded

   ▸ >,< signs prohibited

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Budget Control Administration

BCADM

✓	Control ID	Control Name	Left Hand Side	Operator	Right Hand Side
✓	8	Available To Obligate w. Greater of Budgeted/Actual Revenue	B17:B27:B20>+	>=	0
	15	Adopted Budget	B1	>=	B301

First Prev Next Last

Save Undo Delete Insert Copy Paste   Search

*Control ID : 8

*Control Name : Available To Obligate w. G

Control Description : Constraint limits spending authority to the sum of the Unobligated amount and the greater of Budgeted/Actual revenue.

*Control Formula : Unobligated + GreaterOf(Total Revenue, Expected Revenue) >= 0

Constraint
Guideline

*Formula Type : Constraint

*Expense/Revenue : Expense and Revenue
Expense and Revenue
Expense Only
Revenue Only

*Left Hand Side : B17:B27:B20>+

*Operator : >=

*Right Hand Side : 0

Bucket Triggers : 17,20,27

*Error Code : A1919

Advanced Budget Control : ☑

Needs Initialization : ☐

Defines formula

Determines error code

Determines when controls are applied

Descriptive Fields

Auto-checked when the > or < signs are used in left-hand/right-hand side formulas

Indicates that budget amounts need to be initialized/recalculated due to a formula change to avoid compromising the budget amounts

Notes

▸ Lists pre-defined budget control formulas and sets constraints and guidelines.

▸ Entries can be modified, deleted, or added.

▸ When defining a formula, budget buckets are specified by their bucket ID's. These are defined on the Budget Tracking Amounts table. Operator values are >, <, and =. Combinations of these are also allowed.

▸ The left and right hand side formulas are in reverse-polar notation

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Budget Control

Quick Search

BUDCON

Control ID	Control Name	Default Violation	Formula Type	Error Code
1	Available To Commit Only	Warn	Constraint	A612
2	Available To Commit with Budgeted Revenue	Not Selected	Constraint	A613
3	Available To Commit with Actual Revenue	Not Selected	Const...	A614
4	Available To Commit w. Greater of Budgeted/Actual Revenue	Not Selected	Const...	
5	Available To Obligate Only	Reject	Const...	

First Prev Next Last

Save Undo Copy   Search

Control ID : 1

Control Name : Available To Commit Only

Control Description : Constraint limits Pre-Encumbrances to the Uncommitted amount only.

Formula Type : Constraint

Control Formula : Uncommitted >= 0

Default Violation : Warn

Allow Reject : ☑

Allow Override : ☑

Allow Warning : ☑

Allow No Action : ☑

Include Allotments : ☐

Error Code : A612

Notes

▸ Review the entries to determine which will be set for system-wide guidelines and constraints.

▸ Set the Default Violation to Not Selected if the budget control formula will not be used.

▸ **Changing 'default violation' controls requires the application to be bounced.**

▸ Edit the following attributes:

⁻ Include Allotments

⁻ Control Name

⁻ Allowed Violation actions, i.e, reject, override, warning, no action, not selected.

▸ The Incremental Updates Systems Assurance job, SA12 (3.4), will verify that the constraint amounts used for updates match the amounts calculated from the Budget tables. A report will be generated to show the differences between the Budget Tables and the Budget Constraint Amount table, if any exist.

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Notes

▸ Allows you to specify those violation actions that you want to prohibit from use in budget control formulas throughout the application (i.e., BUDCON, BUDFCON, BUDLCON, Budget Line).

▸ Excluded violation action options prevent violation actions from being selected at the system-wide and fund levels *only* if a violation action is excluded for use in both centralized and decentralized budgets. Otherwise, all violation actions are allowed when you set up budget constraints at the system-wide and fund levels, but are excluded at the 'budget level' and budget line levels.

▸ *Note that adding excluded violation actions to this page after budgets have been established may effectively deactivate some budgets by excluding all possible violation actions from a budget line.*

▸ *No violation action can be excluded for both centralized and decentralized budget constraints or guidelines if that violation action is selected as either a default or a allowed violation action for a budget constraint or guideline already selected for use as a system-wide control formula (i.e., set this table up before applying any controls on BUDCON)*

Invalid Budget Control Options

Copy   First Prev Next Last

IBUDCON

▾ **Centralized Constraints**
- Centralized Constraint Reject : ☐
- Centralized Constraint Override : ☐
- Centralized Constraint No Action : ☑
- Centralized Constraint Warning : ☑

▾ **Centralized Guidelines**
- Centralized Guideline Reject : ☐
- Centralized Guideline Override : ☑
- Centralized Guideline No Action : ☑
- Centralized Guideline Warning : ☑

▾ **Decentralized Contraints**
- Decentralized Constraint Reject : ☑
- Decentralized Constraint Override : ☐
- Decentralized Constraint No Action : ☐
- Decentralized Constraint Warning : ☐

▾ **Decentralized Guidelines**
- Decentralized Guideline Reject : ☑
- Decentralized Guideline Override : ☐
- Decentralized Guidelines No Action : ☐
- Decentralized Guideline Warning : ☐

Top

OK   Cancel

Required Budget

REQBUD

Menu Qu

Auto Generate	Structure ID	Budget Fiscal Year	Doc Code	Event Type	Appr Type	CAFR Fund Type	Fund	Department
☑	29 ›	2006 ›	- ›	- ›	- ›	- ›	- ›	- ›
✓ ☑	30 ›	2006 ›	- ›	- ›	- ›	- ›	- ›	- ›

First Prev Next Last

Appr Unit	Program	Effective From
- ›	- ›	06/01/2005
- ›	- ›	07/01/2005

Notes

▸ Entries are added to this table to apply the use of budget structures to accounting activity, i.e., a budget line at each budget level (with Presence Control) of the budget structure must exist in order for an accounting transaction to process.

▸ If additional control is desired, document code, event type, and some COA elements may also be added. Note that too many entries to this table may impact system performance.

▸ The Auto Generate flag is used to generate budget lines if an existing one is not found for an accounting line being processed. A zero budget line will be created if the budget line does not already exist. (Note: Budget constraints should not be utilized when No Control budgeting is implemented. If constraints are employed when using No Control budgeting, unexpected results may occur when the system attempts to generate a new budget line. If budget constraints and guidelines are required then No Control budgeting should not be used.)

▸ Wild cards are available to apply general rules.

— 'ANY' represents any non-blank value

— 'BLANK' means blank value only

— '-' means skip over the parameter (improves performance)

Verify/Add necessary Budget controls based on the following questions

- What are your budget structures? Appropriations, Expense, Revenue, Cost Accounting. Inactivate all others.
- Which are your 'required' budgets?
  - Are there special circumstances that determine when one is required?
  - Which, if any, are 'no-control' and use AutoGenerate?
- Full-control budgeting?
  - Are the needed budget constraints and guidelines configured?
  - Will you allow budget control overrides/exceptions by fund or budget level (covered next)?
- Do any of your budget tracking amounts (budget buckets):
  - Include Pending amounts
  - Require new formulas for 'calculated' buckets

Budget Controls

The budget controls setup is at a level lower than system wide. Controls can be set for a budget structure, fund, or budget level.

Configuration options covered in this section include:

- Budget Structure – update link on BUDST
- Fund Budget Controls (BUDFCON)
- Budget Level Controls (BUDLCON)

System Wide Setup

- Budget Structures
- Chart of Accounts

System Wide Controls

- Budget Tracking Amounts
- Budget Controls
- Required Budget

Budget Controls

- Budget Structure Controls
- Fund Budget Controls
- Budget Level controls

Optional Budget Controls

- Allotment Options
- Reservations
- Posting Code Update Controls
- COA Inference Tables
- Budget Linking

The **four levels** at which budget controls can be applied/adjusted
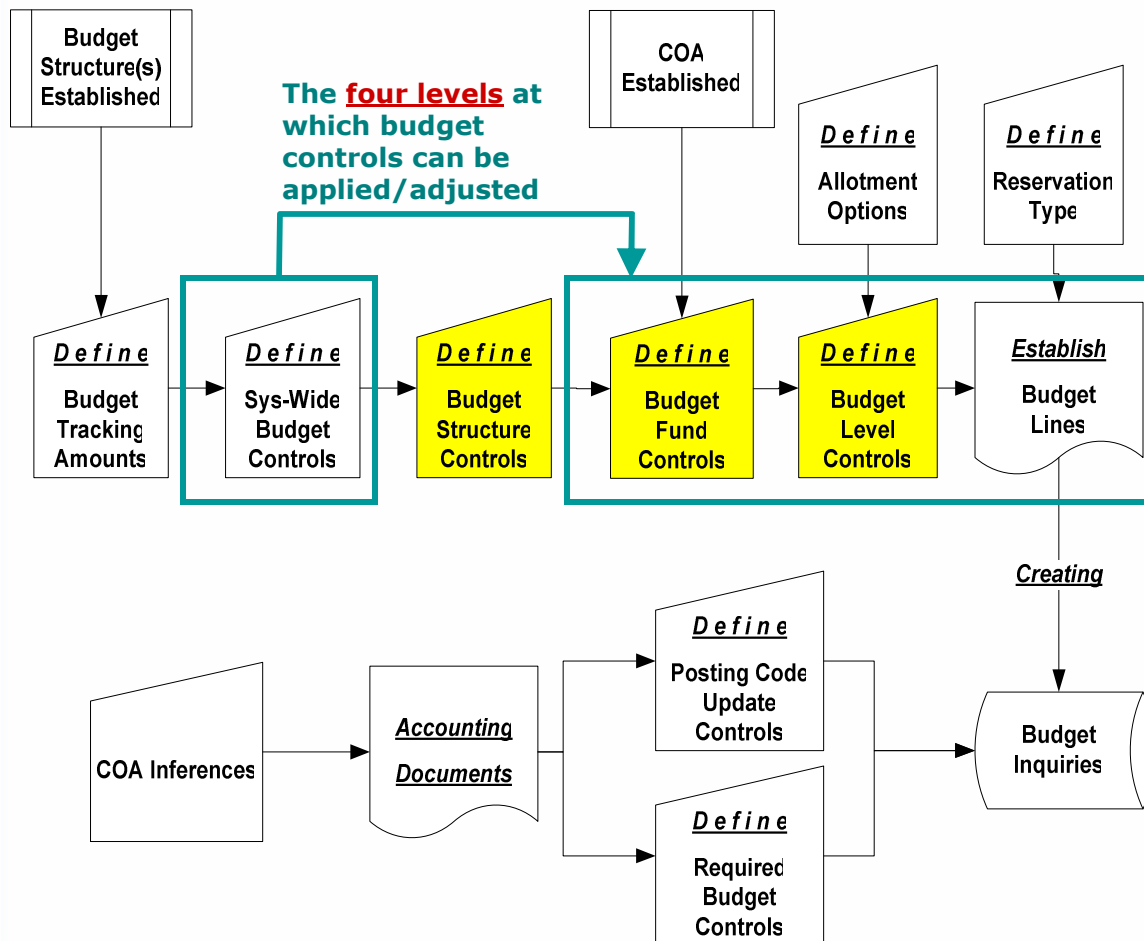
Lower-level Controls

‣ Budget controls can be set at levels lower than system-wide. For example, if a particular fund or funds has specific budget requirements, the Budget Fund Control (BUDFCON)enables formulas and options to be specified for an individual fund.

‣ In addition, some of the fields and controls of the budget structure may be changed using the Budget Structure Update link on the Budget Structure (BUDST) table. Controls and options can also be set for individual budget levels within the budget structure using the Budget Level Control (BUDLCON) table.

‣ Default control levels should be reviewed and changes made depending on the desired level of budget control.

BUDFCON

Budget Fund Control   Quick Search

	Fiscal Year	Fund	Control ID	Control Name	Default Violation	Include Allotments
	2002	101	5	Available To Obligate Only	Reject	false
	2003	101	5	Available To Obligate Only	Reject	false

First Prev Next Last

Save Undo Delete Insert Copy Paste   Search

Fund : 101

Fiscal Year : 2003

Control ID : 5

Control Name : Available To Obligate Only

Control Formula : Unobligated >= 0

Default Violation : Reject

Fund

Allow Reject : ☑
Allow Override : ☐
Allow Warn : ☐
Allow No Action : ☐
Include Allotments : ☐

Notes

▸ If specific controls are required for a fund, lines can be added to the Budget Fund Control (BUDFCON) table. **(bounce)**

▸ Entries in this table override options set for other budget lines with this fund code (per inheritance rules).

▸ Control ID (same as on BUDCON)

▸ If violations can be overridden at a lower level, select violation checkbox(s).

▸ Note that you may also link to the Fund table.

Budget Level Control

BUDLCON

Structure ID	Level ID	Control ID	Control Name	Default Violation	Include Allotments
29	1	26	Current Budget 2	Reject	false
1	1	1	Available To Commit Only	Warn	

First Prev Next Last

Save Undo Delete Insert Copy Paste   Search

Structure ID : 29

Level ID : 1

Default Violation : Reject

Control ID : 26

Control Name : Current Budget 2

Control Formula : Current Budget = Sum Child Current Budgets

Allow Reject : ☑
Allow Override : ☑
Allow Warning : ☑
Allow No Action : ☐
Include Allotments : ☐

Budget Structure

Notes
▸ Go to the Budget Level Control link from BUDST or access the BUDLCON table directly.
▸ Entries in this table are added if specific controls are needed for one or more levels of a budget structure. **(bounce)**
▸ Changes can be made to the following fields:
  — Control ID (same as on BUDCON)
  — Default violation level **(bounce)**
  — Alternative violation actions if may be overridden at a lower level
  — Include allotments option to include allotment amounts in control formulas

BUDST

Budget Level Update

Close
✓ Level
✓ From Link
From Buckets
To Link
To Buckets

Level
Save Undo Delete Insert Copy Paste   First Prev Next Last

Level Name : Fund/Dept/AU

Level Short Name : Level 1

Presence Optional : ☐

Budget Level Update

Close
Level
✓ From Link
From Buckets
To Link
To Buckets

Level
Save Undo Delete Insert Copy Paste   First Prev Next

Level Name : Unit/Object

Level Short Name : Level 2

Presence Optional : ☐

Budget Level Update

From Structure ID	From Structure	From Level ID	From Level
✓ 30	OC Revenue Budget	1	Fund/Dept/Unit/Rev Src

First Prev Next Last
Budget Structure

Budget Level Update

Expense Bucket	Revenue Bucket
✓ Link Collected Earned Revenue	Collected Earned Revenue

First Prev Next Last
Budget Structure

Notes

▸ Go to the Budget Structure (BUDST) Table and select the budget structure.

▸ Select the budget level that you want to change.

▸ Click on the Budget Level Update link.

▸ Change if different controls are desired at a specific budget level:
  — Change name of level
  — Check Presence Optional flag to make this level optional for accounting transactions. **(bounce)**

▸ Navigational actions used for moving between levels

▸ Budget linking information may be viewed for each budget level. (Again, linking, if present, is built into the budget structure)

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Verify/Add necessary Override/Exception controls

- Will you have budget control exceptions/overrides?
    - Will the control level vary across funds?
    - Will the control level vary across budget structures
    - Will the control level vary among budget-levels within a budget structure?
    - Will you have budget levels with only presence control, or even no control?

Optional Budget Controls

There are several optional controls or features that can add functionality to the budget process.

Tables and controls covered in this section include the following:

- Allotment option – link on BUDST
- Posting code updates (PSCD)
- Reservation Type (RSRVT)
- BFY Inference (BFYINF)
- Appropriation Inference (APPRINF)

System Wide Setup

- Budget Structures
- Chart of Accounts

System Wide Controls

- Budget Tracking Amounts
- Budget Controls
- Required Budget

Budget Controls

- Budget Structure Controls
- Fund Budget Controls
- Budget Level controls

Optional Budget Controls

- Allotment Options
- Reservations
- Posting Code Update Controls
- COA Inference Tables
- Budget Linking
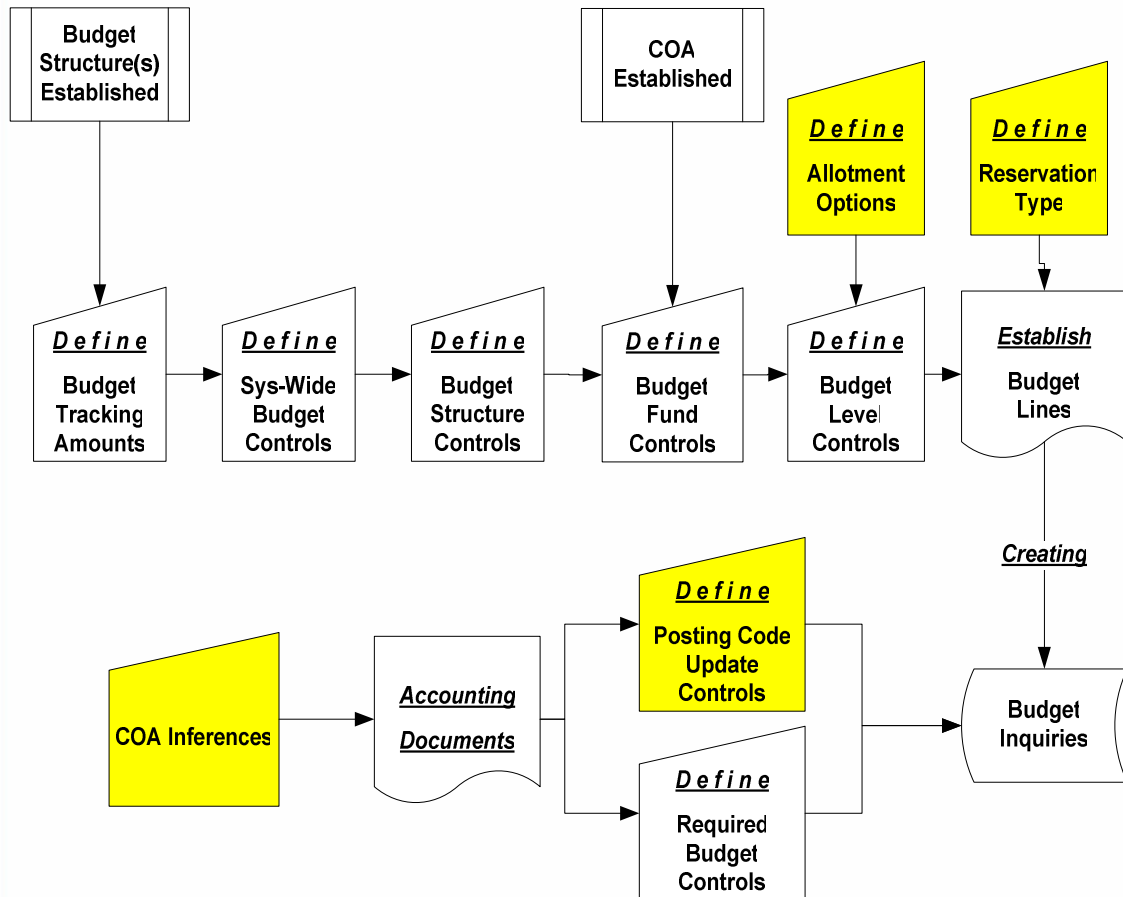
Budget Control Options

▸ There are several other optional budget controls that should be reviewed to determine if they are applicable to your budget process.

▸ Allotments enable budgets to be controlled over defined time periods. They are defined at only one level of a budget structure.

▸ Posting codes determine how budget tracking amounts are updated when transactions are processed. Posting code entries can be changed to update different budget buckets.

▸ The BFY Inference (BFYINF) is used to default a BFY of 9999 for multi-year budget lines. Entries can be added to this table or are added automatically when 9999 is entered in the BFY field.

▸ (cont'd on next slide)

Optional Budget Controls
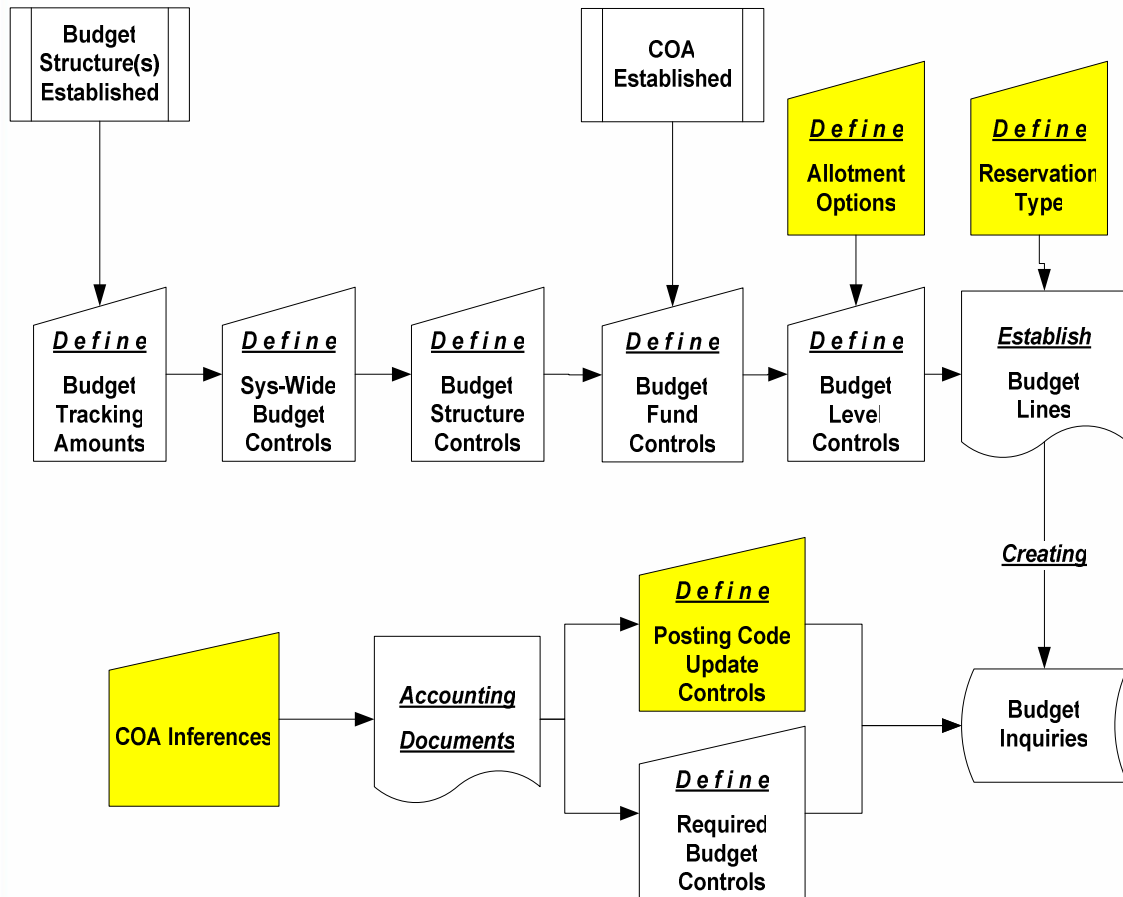
BUD Control Options (cont')

▶ The Appropriation Inference (APPRINF) is used to default appropriation unit on transactions when a specific combination of COA codes is used on a transaction. It is updated by the budget structure that uses those codes.

▶ Reservation Types can be entered on budget transaction lines to reserve funds and prevent accounting transactions from posting against those funds.

▶ Budget Linking provides the ability to fund spending for an expense budget line from an area other than (or in addition to) budget documents recording adoptions, amendments, and carry forwards of budget authority. This other area for funding is a revenue budget line.

Allotment Options

BUDST

Structure ID	BFY	Allotment Frequency	Allotment Accumulation	Allotment Presence Optional
1	2002	Quarterly	Year-to-Date Cumulative	true
1	2003	Quarterly	Year-to-Date Cumulative	

First Prev Next Last

Save Undo Delete Insert Copy Paste   Search

BFY : 2003

Allotment Frequency : Quarterly

Allotment Accumulation : Year-to-Date Cumulative

Allotment Presence Optional : ☑

Budget Structure

Notes

▸ Go to the Budget Structure (BUDST) and select the structure and level to add an allotment. (Note that the allotment must be programmed within the budget structure).

▸ Click on the Allotment Option link on the BUDST page.

▸ Insert an entry by BFY.

▸ Frequency choices: No Allotments, Accounting Period, Quarterly, Semi Annually, and Annually.

▸ Accumulation choices: No Accumulation, Year-To-Date, and Inception-To-Date.

▸ Indicate if presence control is required at the budget line for the allotment, i.e., allotment must exist for accounting activity to update it.

▸ **Changes require an application bounce.**

Reservation Type

Reservation Type		Percent		Description		Fiscal Year	
RSMY		15.000		15% Multi-Year		MY	
RSMY2		5.000		5% Multi-Year		MY	
RSV1		5.000		5% Reservation		2000	
RSV2		10.000		10% Reservation		2000	
RSV3		5.000		5% Reservation		2001	
RSV4		12.500		12.5% Year 2001		2001	
RSV5		8.000		8% Year 1999		1999	
RSV6		7.250		7.25% Year 2000		2000	
RSV7		2.500		2.5% Year 2001		2001	
RSV8		25.000		25% Year 2001		2001	

Save Undo Delete Insert   Copy Paste   First Prev Next Last

Notes

▶ One reservation type code may be entered for each budget line on a budget document.

▶ Reservation type will be stored on the budget inquiry table (but not displayed!)

▶ The "Budget Reserve" = Current Budget * Reservation Percentage.

▶ An update to the percentage on RSRVT updates the Budget Reserve Amount real time!

▶ There are multiple other ways to reserve and release budget authority as well – (these methods [6+] will be included in future release documentation). Some examples are:

  ▶ Use of budget tracking amount formulas – e.g., base Current Budget on allocated vs. adopted for line-by-line release

  ▶ Creative use of budget tracking amounts and event type additions/modifications

  ▶ Set full budget authority at appropriation level and release by processing lower-level budget lines that total to the unreserved amount. Can be automated using Future Document Triggering. (Works only if budget guidelines don't enforce equal amounts among budget levels.)

Verify/Add necessary Optional controls

- Do you use allotments?
    - What are your allotment periods and accumulation options?
    - Do budget controls apply to your allotments (previous section)?
- Do you create budget reserves?
    - How do you reserve and release
        - En masse or line-by-line
        - Do you release through allocations?
        - Do you reserve via pre-encumbrances/ encumbrances?
- Do your expense & revenue structures use budget linking?
- Do you have COA inference or validation tables that specifically support budget controls?

▸ Each budget structure has a corresponding, unique budget transaction (i.e. its own budget document).

▸ Within the transaction, only the lowest level of the structure needs to be entered—other levels may be automatically rolled up/created.

▸ Load Constraints link on budget document header loads controls from BUDCON, BUDFCON, BUDLCON.

▸ Violation actions and controls may also be overridden at the budget line level within a budget transaction.

▸ Each level of a budget structure also has a corresponding unique query screen.

▸ Each query screen displays budget amount, actual amounts, and the ability to drill down to the actual transactions.

▸ The Page Code naming convention for budget queries is BQ[structure id]LV[level number].

What If?

…your organization will use a delivered budget structure and controls?

…your organization will want to make some non-configurable changes?

Here are some guidelines to use.

If you will be using a delivered budget structure and not making changes to budget controls, there are five steps that you will need to complete.

1. Select delivered budget structures.

2. Use delivered budget tracking amounts and budget controls. Select controls to use.

3. Make changes/configure options for fund controls and budget level controls if applicable.

4. Determine if optional controls will be used:

   ‣ Allotments

   ‣ Reservation types

   ‣ BFY and Appropriation Inferences

5. Use delivered Required Budget and Posting Code table entries.

If you need to make non-configurable changes to a budget structure or controls, you should follow the eight steps below:

1. Determine and configure budget structure. Define requirements and send to PE for development. Include type of structure, bucket amounts, allotments used/not used, budget structure levels, and budget linking.

2. Review, modify, and/or add (via PE) budget tracking amounts

3. Review and modify budget controls on BCADM/BUDCON.

4. Set up fund budget controls on BUDFCON, if applicable.

5. Set up budget level controls on BUDLCON, if applicable.

6. Determine if optional controls will be used:

   ‣ Allotments on allotment link on BUDST

   ‣ Reservation types on RSRVT

   ‣ BFY and Appropriation Inferences on BFYINF and APPRINF, respectively.

7. Review and set up required budget entries on REQBUD.

8. Review and update posting code entries on PSCD.

Verify/Add necessary Budget controls

- Will you have budget control exceptions/overrides?

  - Will the control level vary across funds?

  - Will the control level vary across budget structures

  - Will the control level vary among budget-levels within a budget structure?

  - Will you have budget levels with only presence control, or even no control?

- ◆ Introduction
- ◆ General Configuration
- ◆ **Configuration Touching Document-level Setup**
  - ➢ Document Controls (DCTRL), Tolerances, Referencing, Doc Numbering
  - ➢ Application Page Registration
  - ➢ Event Types, Event Requirements, Posting Codes, Budget Updates, Doc-Event Controls
  - ➢ Budget FY Staging, Doc-Date Controls
  - ➢ Basic document configuration for AP, AR, and Proc documents
  - ➢ Security
  - ➢ Workflow & Approvals
- ◆ Miscellaneous configuration of interest
- ◆ Ad hoc discussion and exploration

Course flow:

Part 2

Creating A New Document Code

```
                    Add to Document
                    Control Table
                          |
                          v
Add to Application  <---  (If Needed)
Page Registration         Create
                          New HTML
```

New Event Type Created? — Yes

- Allowable Event Types for Document Type
- Allowable Event Types for Document Code
- BFY Profiles & Stage Document Events

Automatic Document Numbering

Application Resources

Add Needed Entries to Default Event Types

AP, MD, or DC Event Type Crosswalk

A/R

A/P

If A/R or A/P document

Workflow Needed — Yes

- Approval Fields
- Approval Conditions
- Approval Setup

Required Budget — Yes

Budget Posting Codes

If Doc Type RQ, PO, SO, EV, RC, SR

- Procurement Document Control
- Procurement Type

Allowable Accounting Periods for Document Code

Tolerances

Document Code Tolerances

Document Allowable References

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Course flow:

Part 2

Creating A New Document Code

Add to Document Control Table

Add to Application Page Registration

(If Needed) Create New HTML

New Event Type Created?

Automatic Document Numbering

Application Resources

Workflow Needed

If Doc Type RQ, PO, SO, EV, RC, SR

Allowable Accounting Periods for Document Code

Document Allowable References

Yes

Allowable Event Types for Document Type

Allowable Event Types for Document Code

BFY Profiles & Stage Document Events

Add Needed Entries to Default Event Types

AP, MD, or DC Event Type Crosswalk

Yes

Approval Fields

Approval Conditions

Approval Setup

Procurement Document Control

Procurement Type

Tolerances

Document Code Tolerances

A/R

A/P

If A/R or A/P document

Required Budget

Yes

Budget Posting Codes

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Document-Level Configuration – **Document Control (DCTRL)**

Course flow:

Part 2

Creating A New Document Code

Add to Document Control Table

↓

(If Needed) Create New HTML → Add to Application Page Registration

New Event Type Created?

Yes

↓

Allowable Event Types for Document Type

↓

Allowable Event Types for Document Code

↓

BFY Profiles & Stage Document Events

↓

Add Needed Entries to Default Event Types

AP, MD, or DC Event Type Crosswalk

A/P

A/R

If A/R or A/P document

Automatic Document Numbering

Application Resources

Workflow Needed

Yes

↓

Approval Fields

↓

Approval Conditions

↓

Approval Setup

✔Required Budget

Yes

↑

Budget Posting Codes

If Doc Type RQ, PO, SO, EV, RC, SR

↓

Procurement Document Control

↓

Procurement Type

Allowable Accounting Periods for Document Code

↓

Tolerances

↓

Document Code Tolerances

Document Allowable References

Document-Level Configuration – Document Control (DCTRL)

Diagram

| Document Category |
| Document Type |
| Doc Sub-Type |
| **Document Control** |
| Document Tolerance |
| Future Document Triggering |

- System & Fund Tolerances
- Allowed Event Types by Document Type
- Allowed Event Types by Document Code
- Allowed Accounting Periods for Doc Code
- Allowed References
- Allowed Copy Forwards

GA, Security, & Approvals Setup & Controls
- Processing Options/Settings
- Workflow Options
- Requirements & Restrictions
- Permitted Actions
- Functional Area Rules

Key Concepts

▸ DCTRL & related tables provide flexible configuration without code modifications

▸ Document configuration capabilities facilitate special use document clones

▸ Updates to these tables are effective on-the-fly (no bouncing required)

▸ Programmed processing/ business logic resides at Document Type/Sub-Type level

---
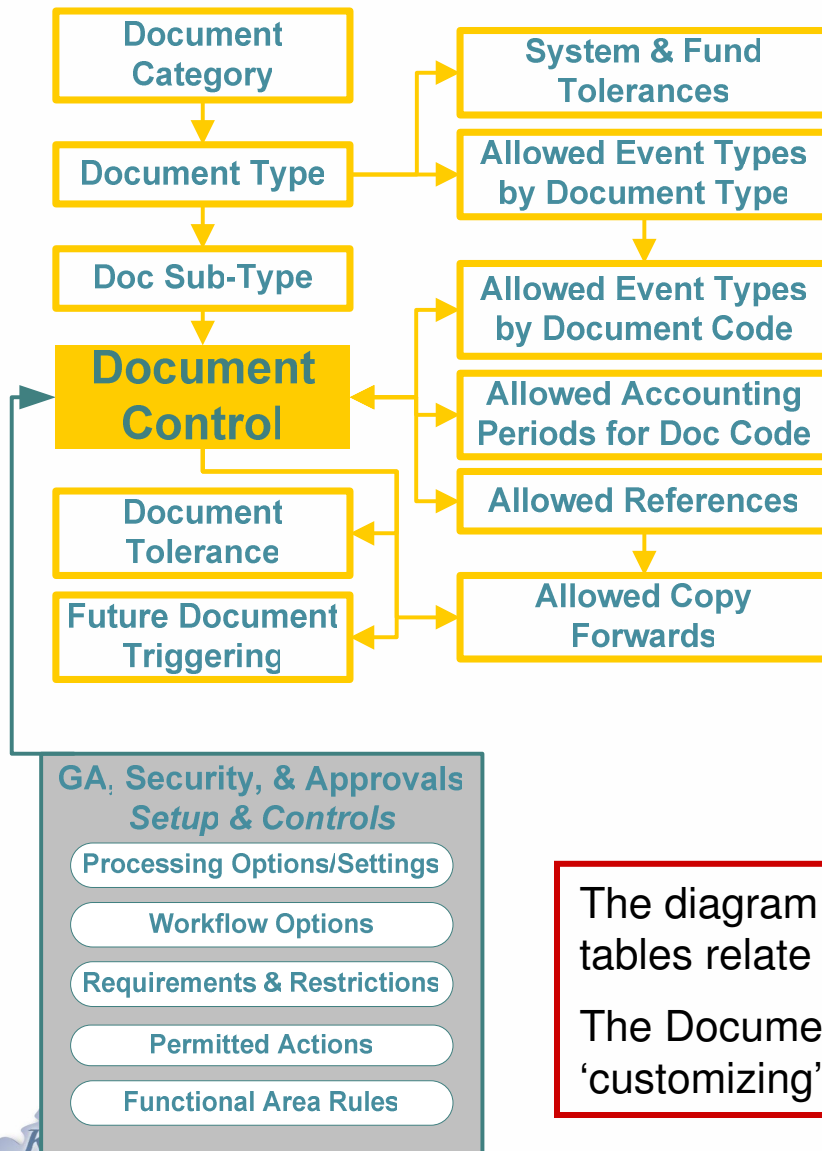
The diagram illustrates how the document-level control tables relate to one another.

The Document Control (DCTRL) table supports 'customizing' document processing and update rules.

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Set up Chart of Accounts

↓

Establish system-wide General Accounting Setup & Controls

↓

Determine/Verify Document Requirements

↓

Set up Document Controls
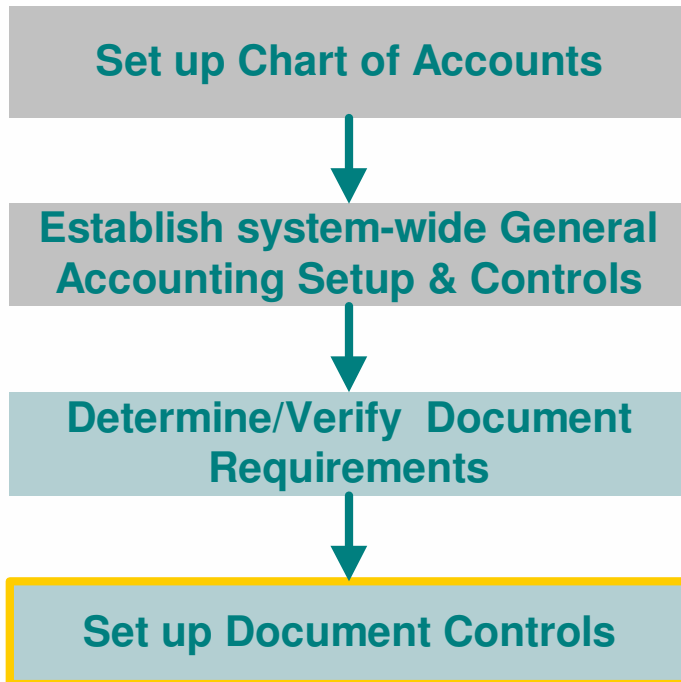
1. *Prerequisite*: Establish Chart of Accounts
2. *Prerequisite*: Establish system-wide General Accounting setup & controls
   ▶ SOPT, SPEC, ETYP, . . .
   ▶ Security (SCROLE, SCRACS)

3. Determine for each document:
   ▶ What document uses are allowed?
   ▶ What event types are allowed & default?
   ▶ What references & copy forwards are allowed?
   ▶ What fields must be coded?
   ▶ What organizational & user-role security rules *(security)* apply?
   ▶ Are there any special cases?
   ▶ Do system-wide GA setup & controls accommodate document uses? Revise as necessary.

4. Set up document controls on Document Control related tables
   ▶ Setup document-specific controls on DCTRL
   ▶ Setup document-level control tables referenced by DCTRL

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The Document Control (DCTRL) table supports 'customizing' document processing and update rules.

Controls are inherited from AETDT, AETDC, DTYP and DCAT. Links to DARF & DCFCTL, AAPDC, and DTOL.

DCTRL

Document Control

Document Type	Document Code	Document Name
JV	JV	Standard Journal Voucher
ABS	GAX	General Accounting Expense/E:
ITI	ITI	Internal Transaction Initiator
ITA	ITA	Internal Transaction Agreement
IET	IET	Internal Exchange Transaction

First Prev <u>Next</u> <u>Last</u>

<u>Save</u> <u>Undo</u> <u>Delete</u> <u>Insert</u> <u>Copy</u> <u>Paste</u>   <u>Search</u>

▶ *General Information*

▶ *General Options*

▶ *Required Elements*

▶ *Allowable Elements*

Document Category

Document Type

Doc Sub-Type

Document Control

Document Tolerance

Future Document Triggering

GA Setup & Controls, Security, & Approvals

System & Fund Tolerances

Allowed Event Types by Document Type

Allowed Event Types by Document Code

Allowed Accounting Periods for Doc Code

Allowed References

Allowed Copy Forwards

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Document-Level Configuration – Document Control (DCTRL)

Examples

‣ Document Codes (PO type): CBDL, CT, DO, PO, POB, SC

‣ Document Codes (JV type): JV, JVA, JVAC, JVBK, JVIA, JVIN, JVSW

```
Document Category  →  Document Type  →  Doc Sub-Type  →  Document Control
```

- Document Category
- Document Type
- Doc Sub-Type
- **Document Control**
- Document Tolerance
- Future Document Triggering
- *GA Setup & Controls, Security, & Approvals*

- System & Fund Tolerances
- Allowed Event Types by Document Type
- Allowed Event Types by Document Code
- Allowed Accounting Periods for Doc Code
- Allowed References
- Allowed Copy Forwards

Highlights

‣ Document Codes come delivered

‣ All documents used must appear on this table – document codes from this table are used throughout the system

‣ Programmatic functionality determined by Document Type selected

‣ Document clones may be added and configured without programming

‣ Separate controls may be applied to each document code (e.g., POs, JVs)

‣ Document Controls on DCTRL: (partial)

  ‣ Minimum & maximum $$
  ‣ Vendor/customer presence
  ‣ Referencing allowances
  ‣ Time restrictions on use of
  ‣ Workflow settings
  ‣ Journal posting control
  ‣ Required editing elements
  ‣ Allowable editing elements

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Document-Level Configuration – Document Control (DCTRL)

Highlights

▸ Document Categories and Document Types come delivered

▸ **Document Codes are categorized by and inherit processing logic from them**

Document Category →	→	**System & Fund Tolerances**
↓		
Document Type →	→	**Allowed Event Types by Document Type**
↓		↓
Doc Sub-Type →	→	**Allowed Event Types by Document Code**
↓		
Document Control	←	**Allowed Accounting Periods for Doc Code**
	←	**Allowed References**
Document Tolerance		
Future Document Triggering →	→	**Allowed Copy Forwards**
GA Setup & Controls, Security, & Approvals		
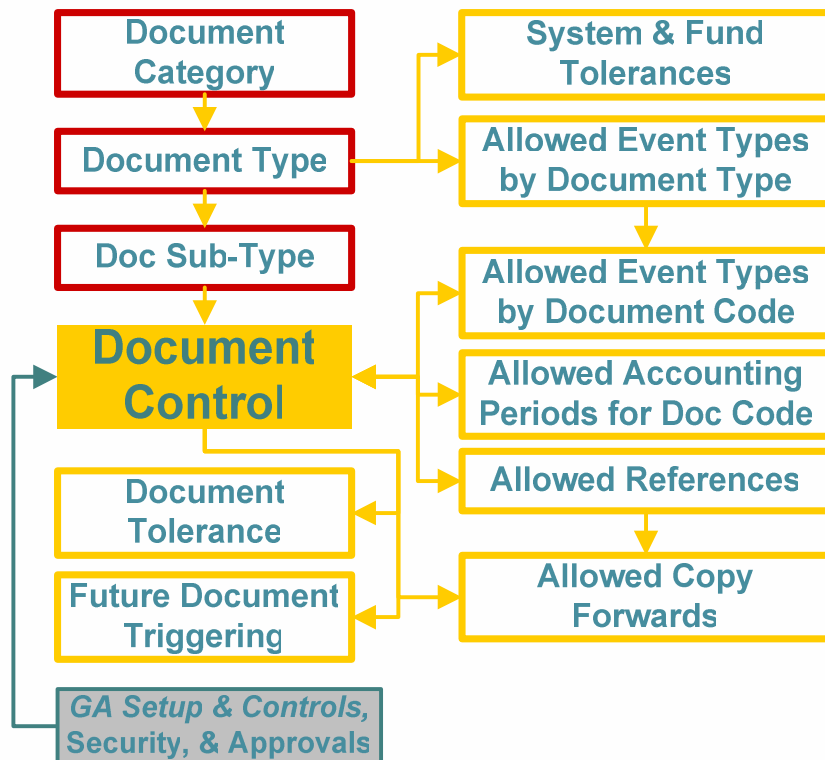
Examples

Document Categories:

▸ **Procurement**
▸ **Accounts Payable**
▸ **Accounts Receivable**
▸ **Budget**
▸ **Cost Accounting**
▸ **Internal**
▸ **Investments**
▸ **Inventory**

Document Types (Category):

▸ Evaluation (Procurement)
▸ Purchase Order *(Procurement)*
▸ Master Agreement *(Procurement)*
▸ Automated Disbursement (AP)
▸ Accrued Receivable (AR)
▸ Budget (Budgeting)
▸ Charge Transaction (Cost Acctg)
▸ Internal Exchange Transaction (Internal)
▸ Investments (Investments)
▸ Stock Issue Confirmation (Inventory)

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In the DCTRL General Information section, the Document Code is categorized by and inherits processing logic from:

- Document Category (DCAT)
- Document Type (DTYP)
- Document Sub-Type (DSTYP)

DCTRL

Document Control

Document Type	Document Code	Document Name
JV	JV	Standard Journal Voucher
ABS	GAX	General Accounting Expense/E:
ITI	ITI	Internal Transaction Initiator
ITA	ITA	Internal Transaction Agreement
IET	IET	Internal Exchange Transaction

First Prev Next Last

Save Undo Delete Insert Copy Paste   Search

▶ *General Information*

▶ *General Options*

▶ *Required Elements*

▶ *Allowable Elements*

Document Category → **System & Fund Tolerances**

Document Type → **Allowed Event Types by Document Type**

Doc Sub-Type

Document Control ← **Allowed Event Types by Document Code**

← **Allowed Accounting Periods for Doc Code**

Document Tolerance ← **Allowed References**

Future Document Triggering ← **Allowed Copy Forwards**

GA Setup & Controls, Security, & Approvals

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Document Control

DCTRL

Menu Quick Search

Document Type	Document Code	Document Name	Active	Effective Fr
✓ ABS	GAX	General Accounting Expense/Expenditure	Yes	
IET	IET	Internal Exchange Transaction	Yes	
ITA	ITA	Internal Transaction Agreement	Yes	
ITI	ITI	Internal Transaction Initiator	Yes	
JV	JV	Standard Journal Voucher	Yes	

First Prev Next Last

Save Undo Delete Insert Copy Paste   Search

▼General Information

Document Category : ABS

Document Category Name : Actg Based Spnd

*Document Type : ABS >

Document Type Name : Actg Based Spnd

*Document Code : GAX

*Document Name : General Accounting Exper

Document Short Name : GA Exp

Sub-Type : GAX

Sub-Type Name : General Account

Home Application : ADVANTAGE F

Effective From :

Effective To :

Active : ☑

▶General Options

▶Required Elements

▶Allowable Elements

Configuration Points
- ▸ Modify Document Name, effective dates, & active flag as needed
- ▸ Add new document codes (?)

Notes
- ▸ DCTRL is first setup step, of many, for adding a new document
- ▸ **Document Type (and to a lesser degree Sub-Type) determines document capabilities**
- ▸ Document Codes, with associated Document Types, are delivered.
- ▸ Document codes must be unique
- ▸ Doc Category inferred from Type

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Begin to create a new specialized document

- Go to DCTRL and search for the existing document that is the most similar to the one you want to create and customize

- Copy and Paste the existing document

- Set the new Document Code and document name

- Verify the document type and sub-type (change subtype if necessary)

(Note: The remainder of the General Information section should be okay. We'll return to this DCTRL record numerous times and configure the rest of this record as we move through the various related content areas on our 'course flow' diagram.)

Doc-Level Configuration – **Page Registration/Numbering**

Course flow:

Part 2

Creating A New Document Code

✓ Add to Document Control Table

Add to Application Page Registration

(If Needed) Create New HTML

New Event Type Created?

Yes

Allowable Event Types for Document Type

Allowable Event Types for Document Code

BFY Profiles & Stage Document Events

Automatic Document Numbering

Application Resources

Workflow Needed

Yes

Approval Fields

Approval Conditions

Approval Setup

If Doc Type RQ, PO, SO, EV, RC, SR

Procurement Document Control

Procurement Type

Allowable Accounting Periods for Document Code

Tolerances

Document Code Tolerances

Document Allowable References

Add Needed Entries to Default Event Types

AP, MD, or DC Event Type Crosswalk

A/R

A/P

If A/R or A/P document

✓ Required Budget

Yes

Budget Posting Codes

Application Page Registration

APGS

Page Code	Description	UI Package	Dest Page	Categ...
CH	Charge Transaction	Cost_Accounting_Reference	fCHRG	Cost Acc...
✓ CHC	Charge Transaction - Custom	Cost_Accounting_Reference	fCHRG	Cost Acc...

First Prev Next Last

Save Undo Delete Insert Copy Paste   Search

Page Code : CHC
Category : Cost Accounting
Page Type : Documents
Description : Charge Transaction - Cust
UI Package : Cost_Accounting_Referen
Application : ADVANTAGE Financial
Dest Page : fCHRG
Dest Frameset :
Dest Frame :
Target Frame : Display

Help Sub Directory : Cost_Accountin
Help File Name : Charge_Transac
Initial Mode : Browse

Order By :

Where Clause :

Searchable? : ☑

Organization Codes

Government Branch :		Division :		District :	
Cabinet :		Group :		Bureau :	
Department :		Section :		Unit :	

Notes

▸ To see it, it must exist here
▸ This page contains entries for all the 'pages' in the application. Every page is identified with a:
   ▸ Page Code (Page Search)
   ▸ Category (Page Search)
   ▸ Page Type (Page Search)
   ▸ Description (Page Search)
   ▸ Application (its home)
   ▸ Destination page (HTML)
▸ Facilitates multiple views of the same resource (e.g., VCUST) (custom HTML necessary for alternate views)
▸ **Pages must be flagged as 'Searchable' to be viewed in Page Search list**
▸ Security is used to restrict which 'listed' pages may be opened
   ▸ Defined as [UI Package].[DestPage]
▸ Pages may be organization-specific (i.e., filtered/restricted by organizational authority)

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ADNT

Auto Numbering

Fiscal Year	Document Code	Department	Prefix	Usage	Last Number
2006	CH	****	****	Not Restricted	0
2006	CH	020	AUTO	Not Restricted	0
2006	CH	920	OHRB	Not Restricted	0
2006	CH	920	REIM	External	0
✓ 2006	CHC	****	****	Not Restricted	0

First Prev Next Last

Save Undo Delete Insert Copy Paste   Search

*Fiscal Year : 2006 ▸

Document Code : CHC ▸

Department : **** ▸

*Prefix : ****

*Usage : Not Restricted ▼

Required : ☐

Include Date : ☑

Date Format : MMDDYY ▼

*Number From : 1

*Number To : 999999

Last Number : 0

Format Field Length : 20

Notes

▸ May be used to automatically number documents (i.e., the Document ID) by document code, whether the document is created manually or via a batch process.

▸ Prefixes and dates may be part of the numbering scheme.

▸ May be used in conjunction with manually keyed prefixes

▸ Auto numbering may be required or optional as set here as well as on DCTRL.

▸ Auto numbering may vary for a document by Department, but is often standard across departments.

Register the new document 'page' and set up Auto Numbering

- Go to APGS and search for the existing Page that is the most similar to the one you want to add
- Copy and Paste the existing Page
- Set:
    - The new Page Code and description
    - Destination Page (<u>only if using a different/custom HTML view</u>)
    - Organizational Codes (<u>only if restricted by organization</u>)
    - Searchable flag if searchable from Page Search (default should be 'true')

    (Note: The remainder of the APGS record should be okay.)

- Go to ADNT and copy/paste the record for cloned document and modify it to create the record for the new document.

Document Control

Menu Quick Search

	Document Type	Document Code	Document Name	Active	Effective From	Effective To
✓	ABS	GAX	General Accounting Expense/Expenditure	Yes		
	IET	IET	Internal Exchange Transaction	Yes		
	ITA	ITA	Internal Transaction Agreement	Yes		
	ITI	ITI	Internal Transaction Initiator	Yes		
	JV	JV	Standard Journal Voucher	Yes		

First Prev Next Last

Save Undo Delete Inse

▶ General Information

▼ General Options

Def Event Type : AP01

Doc Entry Start :

Doc Entry End :

Document Minimum : $0.00

Document Maximum : $0.00

Min/Max Severity : Warning

Vendor Rule : Required

Customer Rule : Prohibited

Ref Document Rule : Optional

COA Precedence : Additional codes allowed

Rollup Precedence : None

Rollup Exception(s) :

Rollup Exception Precedence : None

Time Restriction Severity : Warning

Time Restriction : Limited by Accounting Periods

Override Pend Phase Ind : Required before reaching

Submit Phase : Pending

Workflow Process Indicator : Internal

Workflow Asynchronous Processing : ☐

*Service Date Severity : No Error

Infer Codes : ☑

Journal Posting Control : Synchronous Posting

▶ Accounting Event setup

▶ Date controls augment Budget FY Staging (more in sections below)

▶ Workflow

▶ Data Edit Rules

▶ Referencing

DARF

DCFCTL

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Course flow:

Part 2

Creating A New Document Code

- Add to Document Control Table ✓
- Add to Application Page Registration ✓
- (If Needed) Create New HTML ✓

- New Event Type Created?
  - Yes
  - Allowable Event Types for Document Type
  - Allowable Event Types for Document Code
  - BFY Profiles & Stage Document Events

- Automatic Document Numbering ✓
- Application Resources

- Add Needed Entries to Default Event Types
- AP, MD, or DC Event Type Crosswalk
  - A/R
  - A/P
- If A/R or A/P document

- Workflow Needed
  - Yes
  - Approval Fields
  - Approval Conditions
  - Approval Setup

- If Doc Type RQ, PO, SO, EV, RC, SR
  - Procurement Document Control
  - Procurement Type

- Allowable Accounting Periods for Document Code
  - Tolerances
  - Document Code Tolerances

- Document Allowable References

- Required Budget ✓
  - Yes
  - Budget Posting Codes

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System Options, Special Accts, & Event Setup

System Options (SOPT) → Special Accounts (SPEC) → Special Fund Accounts (SPECFUND) → Posting Code (PSCD) ← Posting Code Closing Classification → Event Category (ECAT) → Event Type (ETYP) → Event Requirements (ERQ)

Budget FY Staging

BFY Staging Profile - Select (BYSTPFSL) → Spending BFY Stage Definition (BYSTDFSP) → Revenue BFY Stage Definition (BYSTDFRV) → Non-Acctg BFY Stage Definition (BYSTDFNA) → Balance Sheet BFY Stage Definition (BYSTDFBS)

Account Balances

Fund Balance Summary (FBALSQ) → Fund Balance Detail (FBALDQ) → Cash Balance Summary (CBALSQ) → Cash Balance Detail (CBALDQ) → Cash Balance Pool (CBALPQ)

Fund Balance Summary Maintenance (FBALS) → Fund Balance Detail Maintenance (FBALD) → Cash Balance Summary Maintenance (CBALS) → Cash Balance Detail Maintenance (CBALD)

Other

Fiscal Year (FY) → FY by Fund (FYFD) → Accounting Period (APD) → Accounting Period by Fund (APDFD) → Calendar Date (CLDT)

Journal/ Ledger Control (JLCTRL)

Document Setup

Document Category (DCAT) → Document Type (DTYP) → Document Sub-Type (DSTYP) → Document Control (DCTRL) → Document Tolerance (DTOL) → Future Document Triggering (FDT)

System Tolerance (STOL) → Fund Tolerance (FTOL) → Allowed Event Types by Document Type (AETDT) → Allowed Event Types by Document Code (AETDC) → Allowed Accounting Periods by Doc Code (AETDC) → Document Allowable References (DARF) → Document Copy Forward Control (DCFCTL)

Accounting Events

Event Controls & Posting Rules

Transactions are 'event driven' using Event Types. System-wide 'event types' and 'posting codes' control transaction activity by inferring rules for processing and posting.

An Event Type is entered on each accounting line within a document. For each event type, there are one or more posting pairs, each pair consisting of two posting codes (one for the debit and one for the credit). Configurable document editing rules are also associated with event types.

These configurable codes replace account types and some hard-coded business logic in ADVANTAGE Financial 2.x and also provide more detail information for processing transactions.

Event Categories, Event Types, and Posting Codes are included in the delivered data model.

Example Event Categories & Event Types

Procurement

- Request – Non-Accounting
- Request from External Vendor – Accounting
- Request from Internal Vendor – Accounting
- Order from External Vendor – Accounting
- Master Agreement – Non-Accounting

Accounts Payable

- Authorize Normal Payment
- Authorize Prepayment
- Authorize Retainage Payment
- Forfeiture of Retainage to Expenditure

Automatic Disbursements

- Pay Expenditure by Warrant – Automatically
- Pay Use Tax by Warrant – Automatically
- Pre Pay by C.F. Warrant – Automatically
- Pay from Generic Equity by Warrant -- Automatically

Accounting Events (cont)

Event & Posting Control

Event Controls & Posting Rules

The graphic illustrates the general flow and hierarchy of controls between event types and posting codes at the system wide level. It also illustrates the relationship between event type and posting code control tables.

Event Category

↓

Event Type

↑ ↓

Event Requirements

Posting Code

Defaults

ETDFLT - Event Type Defaults
MDDFEV - MD Default Event Type
DCXWLK - DC Event Type Crosswalk
APEVXW - AP Event Type Crosswalk

PSCDCL - Posting Code
   Closing Classification

Highlights

▸ Posting Code configuration drives table updates
  ▸ The offset balance sheet account entry defined
  ▸ Budget, Cash Balance, and Fund Balance updates
  ▸ Journal & Ledger updates
  ▸ Accounting activity type (used by BFY Staging) is determined
▸ Event Types for A/P or A/R chain of events may be defaulted

Posting Code

PSCD

Menu

	Posting Code	Name	Account Type	Cash Account	Memo Account
✓	P005	Encumbrance		No	No
	P006	Reserve for Encumbrance	Equity	No	No

First Prev Next Last

Save Undo Delete Insert Copy Paste   Search

General Information

*Posting Code : P005   Closing Classification Code : 12

*Name : Encumbrance   Closing Classification Name : Encumbrances

*Short Name : Encumbrance

Posting Code Closing Classification

Menu Quick Search

▶ Inference and Edit Information

▶ Update/Posting Rules

▶ Classifications   **PSCDCL**

	Closing Classification Code	Name
	1	Asset Roll Forward
✓	10	Cash Expenditures
	11	Accrued Expenditures
	12	Encumbrances
	13	Pre Encumbrances
	14	Collected Revenue
	15	Billed Revenue
	2	Liability Roll Forward
	3	Equity Roll Forward
	4	Contra Asset Roll Forward

Closing Classification Code : 10

Name : Cash Expenditures

Real Posting Code :

Fund Balance Posting Code : A200

Retained Earnings Posting Code : A201

Agency Due To Posting Code : A202

Offset Posting Code : A101

Closing Action : Close Out Nominal

First Prev Next Last

Save Undo Delete Insert
Copy Paste   Search

Highlights

Groups defaults, edits, inference, & update rules for a specific posting

▸ Delivered table (few tweaks expected)

▸ Posting codes paired by Event Types

▸ Defaults, edits, & inferences
  ▸ Default accounts
  ▸ Offset indicator
  ▸ Account types
  ▸ Inference locations/order
  ▸ Memo accounts
  ▸ Cash accounts

▸ Updates
  ▸ Budgets
  ▸ Accounting Control tables
  ▸ Journals
  ▸ Cost Allocation classification

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Posting Code

PSCD

	Posting Code	Name	Account Type	Cash Account	Memo Account
✓	P005	Encumbrance		No	No
	P006	Reserve for Encumbrance	Equity	No	No

First Prev Next Last

Save Undo Delete Inse

▸ General Informat

▸ Inference and Ed

▸ Update/Posting R

▸ Classifications

Top

▼Inference and Edit Information

Default Fund :

Default BSA : Reserve for Encumbrance

Default Object :

Default Revenue Source :

Offset : ☑

Account Type : Equity

Cash Account : ☐

Memo Account : ☐

First Inference : System Wide Special Accounts

Second Inference :

Third Inference :

Bank
Billing Profile
Fixed Asset Type
Inventory
Revenue Source
Warehouse
System Wide Special Accounts

▼Update/Posting Rules

Expense Budget : ☑

Expense Bucket Id : 13

Encumbered

Revenue Budget : ☐

Revenue Bucket Id :

CBAL Bucket : Non_Cash Decrease

CBAL Update : ☑

FBAL Update : ☑

FBAL Bucket : Expense

Code Type : Spending

▼Classifications

Overhead Rate Process : ☑

Cost Allocation Process : Not Applicable

Funding Split : Split for Reporting

FACP Eligible : ☐

Accounting Type Journal : ☑

Journal Type for 1099 Reporting : ☐

Cash Type Journal : ☐

Fixed Asset Type Journal : ☐

Note

All settings are described in the Financial User Guide as well as in Field Help!

Doc-Level Configuration – **Accounting Events/Posting Codes**

ECAT

Event Category

Event Category	Name
✓ PR	Procurement

First Prev Next Last

Save Undo Delete Insert Copy Paste   Search

Event Category : PR   Post Pair A : Item or Service

Name : Procurement   Reversal : ☑

Fixed Asset Cost : ☐

Event Category	Name
ACT	Accounting
PR	Procurement
AP	Accounts Payable
CA	Cost Accounting
IP3	Intra Reimb

First Prev Next Last

Save Undo Delete Insert Copy Paste   Search

Event Category : AP

Name : Accounts Payable

Post Pair A : Disbursement	Post Pair F : F
Reversal : ☑	Reversal : ☐
Fixed Asset Cost : ☑	Fixed Asset Cost : ☐
Post Pair B : Retainage 1	Post Pair G : Pending Asset
Reversal : ☑	Reversal : ☑
Fixed Asset Cost : ☑	Fixed Asset Cost : ☐
Post Pair C : C	Post Pair H : H
Reversal : ☐	Reversal : ☐
Fixed Asset Cost : ☐	Fixed Asset Cost : ☐
Post Pair D : Collateral	Post Pair I : I
Reversal : ☐	Reversal : ☐
Fixed Asset Cost : ☐	Fixed Asset Cost : ☐
Post Pair E : Pre Paid Asset	Post Pair J : J
Reversal : ☐	Reversal : ☐
Fixed Asset Cost : ☐	Fixed Asset Cost : ☐

Highlights

▸ Organizes accounting events by general purpose – high level control

▸ Invokes processing logic, special edits & controls

▸ Ties preset posting pairs to the accounting events within the category:
  ▸ Labels may be changed
  ▸ Generally not entered on documents, though JVs & some AR documents allow the specifying of posting pairs

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Event Type

Event Type	Name	Active
PR01	Request - Non Accounting	true
PR02	Request from External Vendor - Accounting	true
PR03	Request from Internal Vendor - Accounting	true
PR04	Master Agreement - Non Accounting	true
✓ PR05	Order from External Vendor - Accounting	true

First Prev Next Last

Save Undo Delete Insert Copy Paste   Search

▶ **General Information**

▶ Posting Pair A-C

▶ Posting Pair D-F

▶ Posting Pair G-I

▶ Posting Pair J

Top
Event Requirements

Highlights

▸ Defines accounting events

▸ Sets some controls & options for the events

▸ Determines updates via listed posting codes that specify debit & credit balance sheet accounts (most pulled from SPEC)

▸ Event types can default by document code if setup (on DCTRL)

▸ Invoked during document processing on the accounting line to provide edits & update rules

▸ Flexible coding rules link – Event Requirements

ETYP

▼ General Information

*Event Type : PR05

*Name : Order from External Vendo

*Short Name : External Order

Description :

*Event Category : PR ▷

Effective From :

Effective To :

Active : ☑

Reserved Funding : No ▾

Disbursement Request Update : ☐

Advances : ☐

FAPR Update : ☐

Eligible for Intercept Process : ☐

Customer Account Update Flag : ☐

Customer Account Update Type :

Accounting Classification : Spending ▾

eMARS Management Administrative & Reporting System

ETYP

Event Type

Event Type	Name	Active	Effective From
PR01	Request - Non Accounting	true	
PR02	Request from External Vendor - Accounting	true	
PR03	Request from Internal Vendor - Accounting	true	
PR04	Master Agreement - Non Accounting	true	
✓ PR05	Order from External Vendor - Accounting	true	

First Prev Next Last

Save Undo Delete Insert Copy Paste   Search

▶ General Information

Highlights

▸ Controls not only accounting activity – also, budgeting & non-accounting activity

▸ More specific rules optional:

　▸ Valid/invalid combinations tables

　▸ Required elements table

▼ Posting Pair A-C

	Pair A	Pair B	Pair C
Post Pair	Item or Service	B	C
Debit Posting Code	P005		
Debit Offset	No		
Debit Name	Encumbrance		
Credit Posting Code	P006		
Credit Offset	Yes		
Credit Name	Res Encumbrance		
Reversal	Yes	No	No

Use BSA from Actg Line for Pair A : ☐   Use BSA from Actg Line for Pair B : ☐   Use BSA from Actg Line for Pair B : ☐

Use OBSA from Actg Line for Pair A : ☑   Use OBSA from Actg Line for Pair B : ☐   Use OBSA from Actg Line for Pair B : ☐

▶ Posting Pair D-F

▶ Posting Pair G-I

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Event Requirements

Event Type ID	Event Type Name	Document Reference
✓ PR05	External Order	Optional

First Prev Next Last

ERQ

Save Undo Delete Insert Copy Paste   Search

▼ General Information

*Event Type ID : `PR05` >

Event Type Name : `External Order`

Document Reference : `Optional` ▼

*Vendor : `Optional` ▼

*Customer : `Prohibited` ▼

Internal/External Restriction : `Not Restricted`

Bank : `Prohibited` ▼

Memo Document Reference : ☐

Accounting Method : `Purchase Method`

Require Nominal Sub Account for Provider/Seller : ☐

Require Nominal Sub Account for Receiver/Buyer : ☐

Require Inverse Reference : ☐

▶ Fund Accounting

▶ Detail Accounting

Top
Event Type

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▼ Fund Accounting

*Fund : `Required` ▼	*Sub Fund : `Optional` ▼	*Unit : `Required` ▼
*BSA : `Prohibited` ▼	*Sub BSA : `Prohibited` ▼	*Sub Unit : `Optional` ▼
*Object : `Required` ▼	*Sub Object : `Optional` ▼	*Department : `Required` ▼
*Revenue : `Prohibited` ▼	*Sub Revenue : `Prohibited` ▼	*Dept Object : `Optional` ▼
		*Dept Revenue : `Optional` ▼
		*Appropriation : `Required` ▼

▼ Detail Accounting

*Activity : `Optional` ▼	*Sub Activity : `Optional` ▼	*Program : `Optional` ▼
*Reporting : `Optional` ▼	*Sub Reporting : `Optional` ▼	*Phase : `Optional` ▼
*Function : `Optional` ▼	*Sub Function : `Optional` ▼	*Program Period : `Optional` ▼
*Location : `Optional` ▼	*Sub Location : `Optional` ▼	*Task : `Optional` ▼
		*Sub Task : `Optional` ▼
		Task Order : `Optional` ▼

Highlights

‣ Sets specific rules for data requirements on documents that use a given event type

‣ Codes can be:
  ‣ Prohibited
  ‣ Required
  ‣ Optional

‣ Though delivered, these will be 'tweaked'

Doc-Level Configuration – Accounting Events/Posting Codes

From Event Type to BSA Code (for automatic offsetting account entry)

Document

from **Event Type**

Accounting Line

Event Type

Event Category

Posting Pairs

Posting Codes

Offset Posting Code

Default BSA Name

Inference Location

BSA

SPEC → **SPECFUND** **BANK** **BPRO**

RSRC **FATP** **INVN** **WHSE**

Default BSA Code

Posting Line
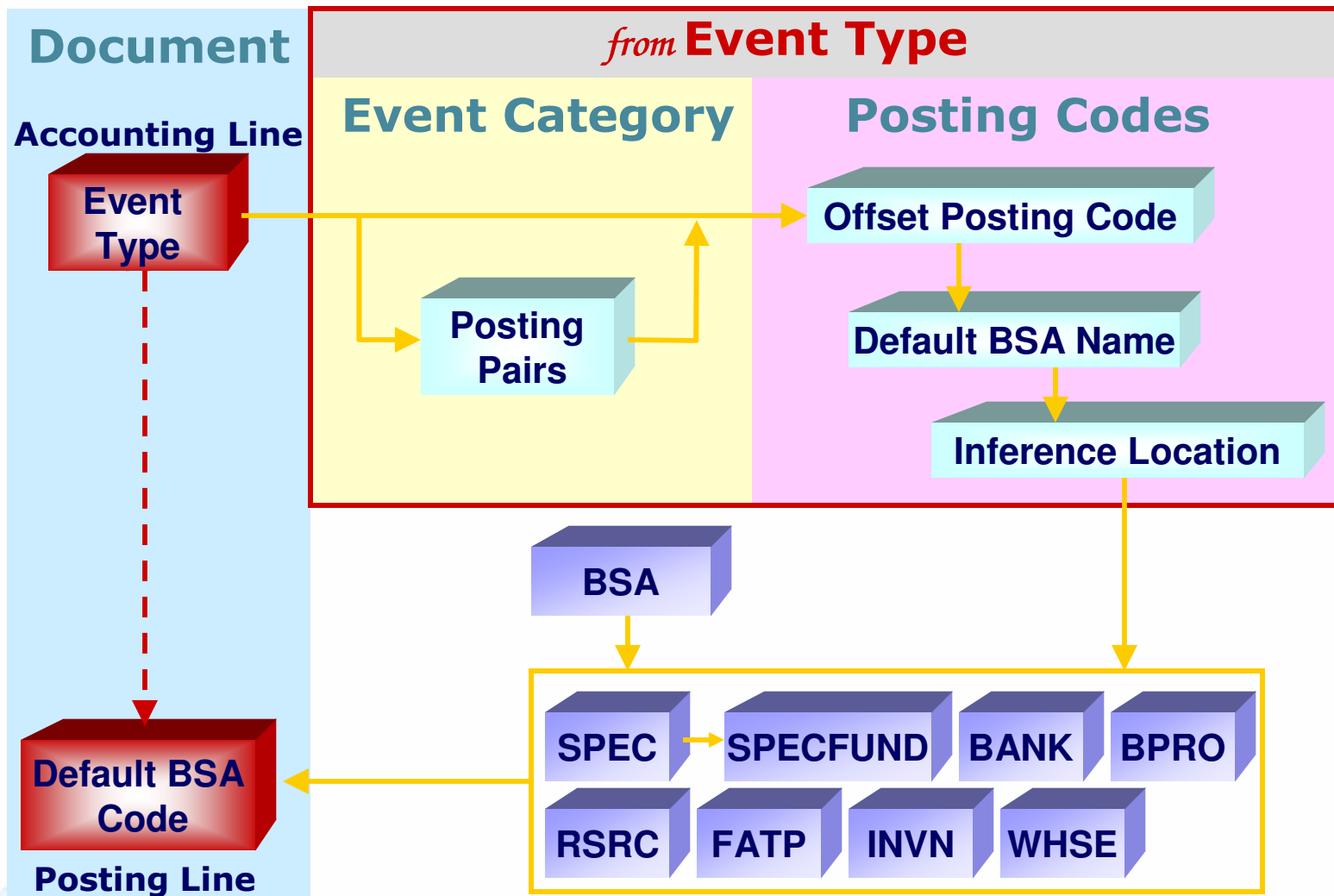
Verify/create Event Types

- Verify/create needed Event Type
  - Search ETYP for the appropriate Event (start with AETDC if helpful to find the relevant Event Types by document code)
- If a new Event Type is needed, copy/paste the closest existing Event Type and modify the new one as necessary
- Verify the General Information section details, particularly the Event Category & Active flag
- Verify that the Posting Pairs and Posting Codes are correct
  - If a new posting code is needed, create it as part of the next exercise
- Go to the Event Requirements (ERQ) and verify/modify the data entry requirements that support the accounting event.
  - This ERQ and DCTRL tables are the two that drive most data edit/entry requirements that are not hard coded. If a transaction is yielding unexpected errors pertaining to data entry or processing rules, these are among the first two tables to check to resolve the issue.

Verify/create Posting Codes

- Go to PSCD and search on the Posting Codes identified in the previous exercise
  - If a new posting code is needed, copy/paste the closest existing posting code and modify the new one as necessary
- Verify that the offsetting posting code is flagged as such and:
  - Infers the correct BSA from the correct reference table (e.g., SPEC)
  - Updates the right accounting journal(s)
- Verify that the nominal posting code:
  - Updates the appropriate expense/revenue bucket
  - Updates Cash and Fund balance appropriately
  - Updates the right accounting journal(s)
- Save any changes

Note: Posting Codes drive most actual table updates in the system. Events just pair them together appropriately and package them with business rules, data entry requirements, etc. A good data reference path to be familiar with to identify posting updates is AETDC → ETYP → PSCD. Posting results are readily available on the posting line of documents, the accounting journals, and the budget, cash, and fund balance queries.

Doc-Level Configuration – Document-Event Combinations

Course flow:

Part 2

Creating A New Document Code

✔ Add to Document Control Table

✔ Add to Application Page Registration

✔ (If Needed) Create New HTML

✔ New Event Type Created?

✔ Automatic Document Numbering

Application Resources

Workflow Needed

If Doc Type RQ, PO, SO, EV, RC, SR

Allowable Accounting Periods for Document Code

Document Allowable References

Yes

Allowable Event Types for Document Type

Allowable Event Types for Document Code

Add Needed Entries to Default Event Types

AP, MD, or DC Event Type Crosswalk

A/R

A/P

Yes

Approval Fields

Approval Conditions

Approval Setup

Procurement Document Control

Procurement Type

Tolerances

Document Code Tolerances

BFY Profiles & Stage Document Events

If A/R or A/P document

✔ Required Budget

Yes

✔ Budget Posting Codes

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System Options, Special Accts, & Event Setup

- System Options (SOPT)
- Special Accounts (SPEC)
- Special Fund Accounts (SPECFUND)
- Posting Code (PSCD)
- Posting Code Closing Classification
- Event Category (ECAT)
- Event Type (ETYP)
- Event Requirements (ERQ)

Budget FY Staging

- BFY Staging Profile - Select (BYSTPFSL)
- Spending BFY Stage Definition (BYSTDFSP)
- Revenue BFY Stage Definition (BYSTDFRV)
- Non-Acctg BFY Stage Definition (BYSTDFNA)
- Balance Sheet BFY Stage Definition (BYSTDFBS)

Account Balances

- Fund Balance Summary (FBALSQ)
- Fund Balance Detail (FBALDQ)
- Cash Balance Summary (CBALSQ)
- Cash Balance Detail (CBALDQ)
- Cash Balance Pool (CBALPQ)
- Fund Balance Summary Maintenance (FBALS)
- Fund Balance Detail Maintenance (FBALD)
- Cash Balance Summary Maintenance (CBALS)
- Cash Balance Detail Maintenance (CBALD)

Other

- Fiscal Year (FY)
- FY by Fund (FYFD)
- Accounting Period (APD)
- Accounting Period by Fund (APDFD)
- Calendar Date (CLDT)
- Journal/Ledger Control (JLCTRL)

Document Setup

- Document Category (DCAT)
- Document Type (DTYP)
- Document Sub-Type (DSTYP)
- Document Control (DCTRL)
- Document Tolerance (DTOL)
- Future Document Triggering (FDT)
- System Tolerance (STOL)
- Fund Tolerance (FTOL)
- Allowed Event Types by Document Type (AETDT)
- Allowed Event Types by Document Code (AETDC)
- Allowed Accounting Periods by Doc Code (AETDC)
- Document Allowable References (DARF)
- Document Copy Forward Control (DCFCTL)

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Examples

▸ AETDT: Identifies the six valid event types for the PO document type

▸ AETDC: Allocates the event types for the PO document type among the CBDL, CT, DO, PO, POB, & SC document codes as appropriate

---

| Document Category |
| Document Type |
| Doc Sub-Type |
| **Document Control** |
| Document Tolerance |
| Future Document Triggering |
| *GA Setup & Controls, Security, & Approvals* |

| System & Fund Tolerances |
| Allowed Event Types by Document Type |
| Allowed Event Types by Document Code |
| Allowed Accounting Periods for Doc Code |
| Allowed References |
| Allowed Copy Forwards |
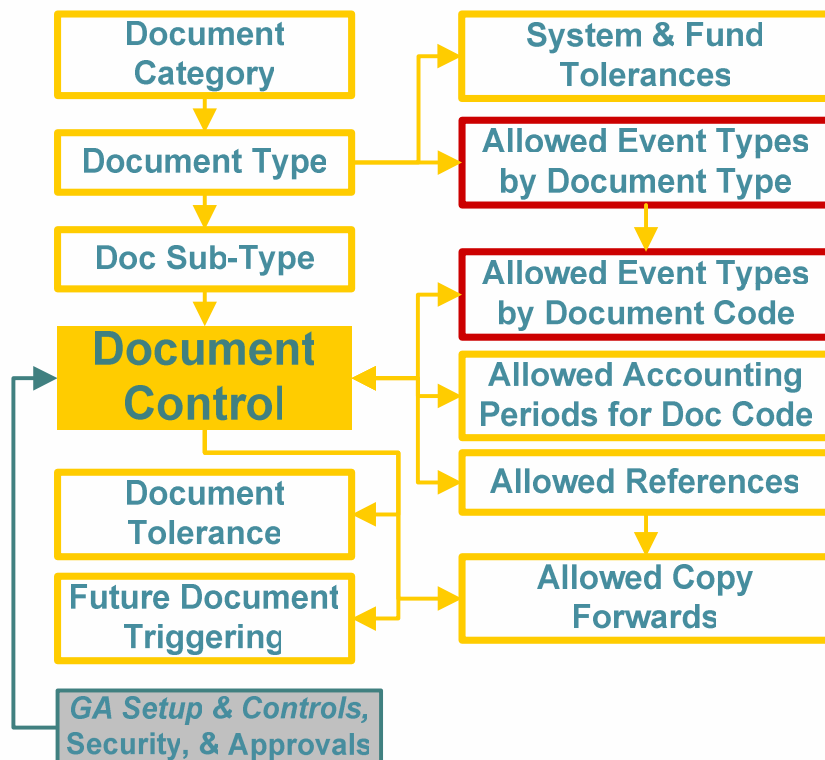
Highlights

▸ AETDT: Matches accounting events to document [type] 'capabilities'

▸ AETDC:

   ▸ Matches accounting events to specific documents (i.e., allocates AETDT entries among different documents that share the same programmatic functionality)

   ▸ Sets the default event type for each document

Doc-Level Configuration – **Document-Event Combinations**

Allowable Events Types for Document Type

AETDT

Doc Type	Doc Type Short Name	Event Type	Event Type Short Name
ABS	Actg Based Spnd	PR03	Intern Request
ABS	Actg Based Spnd	PR02	Extern Request

First Prev Next Last

Save Undo Delete Insert Copy Paste   Search

Doc Type : ABS

Event Type : PR03

Doc Type Short Name : Actg Based Spnd
Doc Category Short Name : Actg Based Spnd
Event Type Short Name : Intern Request

Configuration Points
- ▶ Verify event type / document type combinations

Notes
- ▶ Matches Event/Posting rules & setup to appropriate data collection tools (i.e., documents) – i.e., the bridge between the posting engine and document processors

Links
- ▶ Restricts AETDC table setup

Configuration Points
- ▶ Add/remove event type / document code combinations
- ▶ Indicate the default event for the document

Notes
- ▶ **Establishes a smallest subset of allowed events for each document within a document type**

Allowable Event Types for Document Code

AETDC

Doc Type	Doc Type Short Name	Doc Code	Doc Code Short Name	Event Type	Event Type
ABS	Actg Based Spnd	GAP	GA Pre Enc	PR02	Extern Request
ABS	Actg Based Spnd	GAP1	GA Pre Enc - P	PR02	Extern Request

First Prev Next Last

Save Undo Delete Insert Copy Paste   Search

Doc Type : ABS

Doc Code : GAP

Event Type : PR02

Default Event Type : ☑

Doc Type Short Name : Actg Based Spnd
Doc Category Short Name : Actg Based Spnd
Doc Code Short Name : GA Pre Enc
Event Type Short Name : Extern Request

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Creating A New Document Code

Course flow:

Part 2

Add to Document Control Table ✓

Add to Application Page Registration ✓

(If Needed) Create New HTML ✓

New Event Type Created? ✓

Automatic Document Numbering ✓

Application Resources

Workflow Needed

If Doc Type RQ, PO, SO, EV, RC, SR

Allowable Accounting Periods for Document Code

Document Allowable References

Yes

Allowable Event Types for Document Type ✓

Add Needed Entries to Default Event Types

Yes

Approval Fields

Procurement Document Control

Tolerances

Allowable Event Types for Document Code ✓

AP, MD, or DC Event Type Crosswalk

A/R

Approval Conditions

Procurement Type

Document Code Tolerances

BFY Profiles & Stage Document Events

A/P

Approval Setup

Required Budget ✓

Yes

If A/R or A/P document

Budget Posting Codes ✓

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Accounting Events (cont)

Event & Posting Control

Event Controls & Posting Rules

The graphic illustrates the general flow and hierarchy of controls between event types and posting codes at the system wide level. It also illustrates the relationship between event type and posting code control tables.

Event Category

↓

Event Type →

Event Requirements

Posting Code →

Defaults

ETDFLT - Event Type Defaults
MDDFEV - MD Default Event Type
DCXWLK - DC Event Type Crosswalk
APEVXW - AP Event Type Crosswalk

PSCDCL - Posting Code
      Closing Classification

Highlights

▸ Event Types for A/P or A/R chain of events may be defaulted

▸ These Event Type defaults take precedence over the document default as set on AETDC

Event Type Defaults

Quick Search

ETDFLT

Doc Type		Ref Event Type		Name	Doc Event Type		Name	Same Bank
CL	>	AR01	>	Bill Earned Revenue	AR05	>	Refer Earned Receivable to Collection Agency	N/A
CL	>	AR30	>	Bill Vendor Refund - Budgetary	AR34	>	Refer Vendor Refund to Collection Agency - Budgetary	N/A
CL	>	AR31	>	Bill Vendor Refund - Non Budgetary	AR35	>	Refer Vendor Refund to Collection Agency - Non Budgetary	N/A
CR	>	AR01	>	Bill Earned Revenue	AR02	>	Collect Earned Revenue	N/A
CR	>	AR06	>	Accrue Earned Revenue	AR02	>	Collect Earned Revenue	N/A
CR	>	AR10	>	Bill Unearned Revenue	AR11	>	Collect Unearned Revenue	N/A
CR	>	AR20	>	Bill Deposit	AR21	>	Collect Deposit	N/A
CR	>	AR30	>	Bill Vendor Refund - Budgetary	AR32	>	Collect Vendor Refund	N/A
CR	>	AR31	>	Bill Vendor Refund - Non Budgetary	AR32	>	Collect Vendor Refund	N/A
CR	>	AR34	>	Refer Vendor Refund to Collection Agency - Budgetary	AR32	>	Collect Vendor Refund	N/A
CR	>	AR35	>	Refer Vendor Refund to Collection Agency - Non Budgetary	AR32	>	Collect Vendor Refund	N/A
CR	>	AR50	>	Bill to Asset Account	AR51	>		N/A
CR	>	AR52	>	Bill to Liability Account	AR53			
CR	>	AR54	>	Bill to Equity Account	AR55			
IET	>	AR01	>	Bill Earned Revenue	IN10			
IET	>	AR01	>	Bill Earned Revenue	IN11			

First Prev Next Last

Save Undo Delete Insert Copy Paste   Search

Highlights

▸ Defines event type defaults used with referenced event types.

▸ This table only applies to AR documents: RE,CR, WO, CL, and the IT.

Restrict allowed Event Types for new document

- Go to AETDC and search for all Event Types allowed for the document that you cloned (the pre-existing document).

- Copy/paste the records for event types that apply to the new document as well and change the document code to the new code.

- Add any additional records for new allowed Event Types, if any

- Set the default Event Type for the new document.

- Go to the AP or AR Event Type default and/or crosswalk tables as necessary for related documents

  - ETDFLT - Event Type Defaults

  - MDDFEV - MD Default Event Type

  - DCXWLK - DC Event Type Crosswalk

  - APEVXW - AP Event Type Crosswalk

Course flow:

Part 2

Creating A New Document Code

Add to Document Control Table ✔

↓

Add to Application Page Registration ✔ ← **(If Needed) Create New HTML** ✔

New Event Type Created? ✔ → Yes

Automatic Document Numbering ✔

Application Resources

Workflow Needed → Yes

If Doc Type RQ, PO, SO, EV, RC, SR

Allowable Accounting Periods for Document Code

Document Allowable References

↓ Yes

Allowable Event Types for Document Type ✔

Add Needed Entries to Default Event Types ✔

Approval Fields

Procurement Document Control

Tolerances

↓

Allowable Event Types for Document Code ✔

AP, MD, or DC Event Type Crosswalk ✔

Approval Conditions

Procurement Type

Document Code Tolerances

A/R

BFY Profiles & Stage Document Events

A/P

Approval Setup

✔ **Required Budget**

↓ Yes

If A/R or A/P document ✔

Budget Posting Codes ✔

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System Options, Special Accts, & Event Setup

- System Options (SOPT)
- Special Accounts (SPEC)
- Special Fund Accounts (SPECFUND)
- Posting Code (PSCD)
- Posting Code Closing Classification
- Event Category (ECAT)
- Event Type (ETYP)
- Event Requirements (ERQ)

Budget FY Staging

- BFY Staging Profile - Select (BYSTPFSL)
- Spending BFY Stage Definition (BYSTDFSP)
- Revenue BFY Stage Definition (BYSTDFRV)
- Non-Acctg BFY Stage Definition (BYSTDFNA)
- Balance Sheet BFY Stage Definition (BYSTDFBS)

Account Balances

- Fund Balance Summary (FBALSQ)
- Fund Balance Detail (FBALDQ)
- Cash Balance Summary (CBALSQ)
- Cash Balance Detail (CBALDQ)
- Cash Balance Pool (CBALPQ)
- Fund Balance Summary Maintenance (FBALS)
- Fund Balance Detail Maintenance (FBALD)
- Cash Balance Summary Maintenance (CBALS)
- Cash Balance Detail Maintenance (CBALD)

Other

- Fiscal Year (FY)
- FY by Fund (FYFD)
- Accounting Period (APD)
- Accounting Period by Fund (APDFD)
- Calendar Date (CLDT)
- Journal/Ledger Control (JLCTRL)

Document Setup

- Document Category (DCAT)
- Document Type (DTYP)
- Document Sub-Type (DSTYP)
- Document Control (DCTRL)
- Document Tolerance (DTOL)
- Future Document Triggering (FDT)
- System Tolerance (STOL)
- Fund Tolerance (FTOL)
- Allowed Event Types by Document Type (AETDT)
- Allowed Event Types by Document Code (AETDC)
- Allowed Accounting Periods by Doc Code (AETDC)
- Document Allowable References (DARF)
- Document Copy Forward Control (DCFCTL)

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Examples

▸ A payment request can reference a purchase order

▸ A purchase order can copy forward to a payment request

Document Category

↓

Document Type

↓

Doc Sub-Type

↓

Document Control

Document Tolerance

Future Document Triggering

GA Setup & Controls, Security, & Approvals

System & Fund Tolerances

Allowed Event Types by Document Type

Allowed Event Types by Document Code

Allowed Accounting Periods for Doc Code

Allowed References

Allowed Copy Forwards
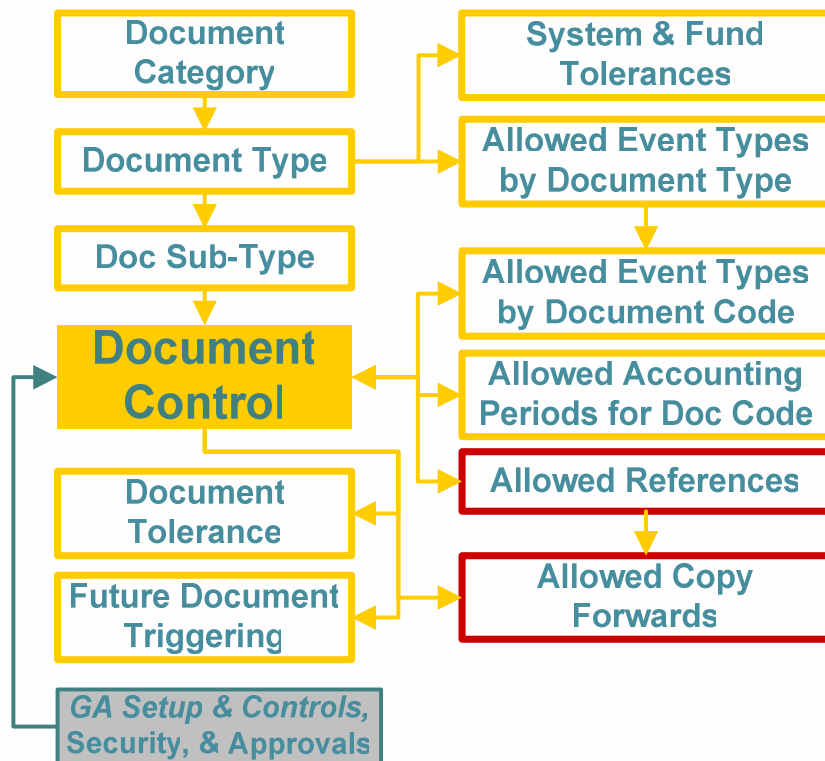
Highlights

▸ Allowed document references and allowed 'copy forwards' come delivered and are highly correlated, for obvious reasons

▸ The number of allowed references may be reduced if needed (e.g., perhaps a payment request should not reference a requisition)

▸ Copy Forwards include programmed logic for creating pre-populating documents being copied to

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Document Allowable References

Doc Type	Doc Code	Reference Type	Reference Code
ABS	GAE	ABS	GAP
ABS	GAE	ABS	GAP1
ITI	ALL	ABS	GAP
ITI	ALL	ABS	GAP1
JV	ALL	AD	ALL

First Prev Next Last

Details

DARF

Save Undo Delete Insert Copy Paste Search

* Doc Type : `ABS`

Doc Type Short Name : Actg Based Spnd

* Doc Code : `GAE`

Doc Code Short Name : GA Encumb

* Reference Type : `ABS`

Reference Type Short Name : Actg Based Spnd

* Reference Code : `GAP`

Reference Code Short Name : GA Pre Enc

The DARF and DCFCTL table setup will be highly correlated, for obvious reasons

Configuration Points

▸ Add/remove allowed references for documents

▸ Verify allowed Copy Forward combinations

Notes

▸ A document code can reference any other code

▸ Technical work is needed for new Copy Forwards

Links

▸ Reference rules for DARF are applied on DCTRL

Document Copy Forward Control

Sub action Code	Source Doc Type	Source Doc Code	Target Doc Type	Target Doc
317 ABS		GAE	ABS	GAX
317 ABS		GAE1	ABS	GAX
317 ABS		GAP	ABS	GAX
317 ABS		GAP1	ABS	GAX

First Prev Next Last

DCFCTL

Save Undo Delete Insert Copy Paste Search

Sub action Code : `317`　　　Target Doc Code : `GAX`

Source Doc Type : `ABS`　　　Description : `Create GAX from GAE`

Target Doc Type : `ABS`

Source Doc Code : `GAE`

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Document Flow Within
ADVANTAGE 3

Not shown but could memo reference any with an accounting line or be memo referenced by any:

Shown here are documents that do not reference others

- All dotted lines are either a special type of reference or a memo reference.
- All solid lines are either a partial/final type reference, unless otherwise noted on the line
- A line connecting a box around one or more documents indicates the reference applies to all documents in the box.
- A lines connecting a single document within a box indicates the reference applies only to that single document
- Most abbreviations above are document types, however, some are document codes that have a specific purpose

Document Category		System & Fund Tolerances

Document Type → Allowed Event Types by Document Type

Doc Sub-Type

Document Control

Allowed Event Types by Document Code

Allowed Accounting Periods for Doc Code

Document Tolerance

Allowed References

Future Document Triggering

Allowed Copy Forwards

GA Setup & Controls, Security, & Approvals

Tolerances Setup

Tolerances check accounting line amount differences between sequential documents that reference one another. Tolerance controls may be set at three different levels: System Tolerances, Fund Tolerances, and Document Tolerances.

Tolerances Setup

Tolerances can be set at three levels by fiscal year. They control edits on overage and underage amounts between sequential documents – for example, amount or percent differences between requisitions and purchasing documents.

Tolerances are checked at the accounting line level and are based on total activity for the line.

Tolerance thresholds can be set to reject the transaction, simply warn, or to require an authorized override.

Fund Tolerance may optionally override System Tolerance, but otherwise the <u>three tolerance levels are validated independent of one another</u>.

System Tolerance

⬇

Fund Tolerance

⬇

Document Tolerance

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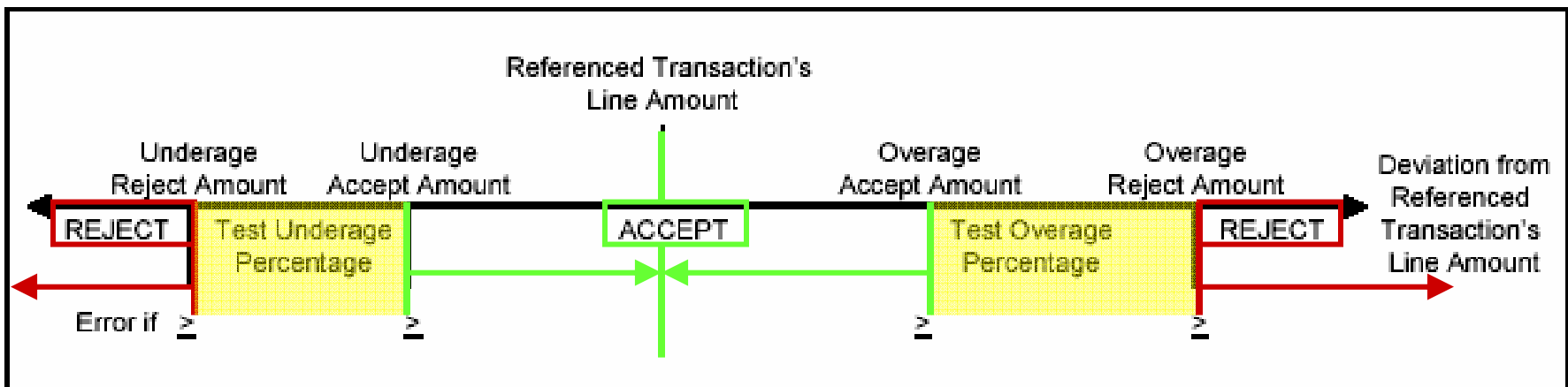
Define forward and backward referencing for new document

- Go to DARF and search for all records using the document code for the document previously cloned.
  - Copy/paste each record as necessary, replacing the document code with the new document code, to allow for referencing requirements
- Go to DCFCTL and search for all records using the document code for the document previously cloned
  - Copy/paste each record as necessary, replacing the document code with the new document code, to provide for copy forward capabilities – pay special attention to the Sub-action Code setting.
- Go to STOL, FTOL, and/or DTOL as needed to verify/setup up tolerances for the new document for forward/backward referencing

Course flow:

Part 2

Creating A New Document Code

```
Add to Document
Control Table
        │
        ▼
Add to Application   ◄──── (If Needed)
Page Registration          Create
                           New HTML
```

New Event Type Created?
↓ Yes
Allowable Event Types for Document Type
↓
Allowable Event Types for Document Code
↓
BFY Profiles & Stage Document Events
↓

Automatic Document Numbering

Application Resources

Add Needed Entries to Default Event Types
↓
AP, MD, or DC Event Type Crosswalk
↑ A/P   A/R →
If A/R or A/P document

Workflow Needed
↓ Yes
Approval Fields
↓
Approval Conditions
↓
Approval Setup

Required Budget
↑ Yes
Budget Posting Codes

If Doc Type RQ, PO, SO, EV, RC, SR
↓
Procurement Document Control
↓
Procurement Type

Allowable Accounting Periods for Document Code
↓
Tolerances
↓
Document Code Tolerances

Document Allowable References

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System Options, Special Accts, & Event Setup

System Options (SOPT) → Special Accounts (SPEC) → Special Fund Accounts (SPECFUND) → Posting Code (PSCD) ← Posting Code Closing Classification → Event Category (ECAT) → Event Type (ETYP) → Event Requirements (ERQ)

Budget FY Staging

BFY Staging Profile - Select (BYSTPFSL) → Spending BFY Stage Definition (BYSTDFSP) → Revenue BFY Stage Definition (BYSTDFRV) → Non-Acctg BFY Stage Definition (BYSTDFNA) → Balance Sheet BFY Stage Definition (BYSTDFBS)

Account Balances

Fund Balance Summary (FBALSQ) — Fund Balance Detail (FBALDQ) — Cash Balance Summary (CBALSQ) — Cash Balance Detail (CBALDQ) — Cash Balance Pool (CBALPQ)

Fund Balance Summary Maintenance (FBALS) — Fund Balance Detail Maintenance (FBALD) — Cash Balance Summary Maintenance (CBALS) — Cash Balance Detail Maintenance (CBALD)

Other

Fiscal Year (FY) → FY by Fund (FYFD) — Accounting Period (APD) → Accounting Period by Fund (APDFD) — Calendar Date (CLDT) — Journal/Ledger Control (JLCTRL)

Document Setup

Document Category (DCAT) → Document Type (DTYP) → Document Sub-Type (DSTYP) — Document Control (DCTRL) → Document Tolerance (DTOL) — Future Document Triggering (FDT)

System Tolerance (STOL) — Fund Tolerance (FTOL) — Allowed Event Types by Document Type (AETDT) → Allowed Event Types by Document Code (AETDC) — Allowed Accounting Periods by Doc Code (AETDC) — Document Allowable References (DARF) — Document Copy Forward Control (DCFCTL)

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BFY Staging

BFY Profiles & Stages

Budget Fiscal Year Staging refers to the capability provided by AMS Advantage Financial to establish rules for when budget and accounting events (i.e., documents and event types) can be processed for a given budget fiscal year.

For example, processing rules often allow for purchase orders to be processed that initiate the procurement cycle prior to the beginning of a budget fiscal year. On the other hand, the processing of payment documents prior to the beginning of a budget fiscal year would generally be prohibited.

"Budget Fiscal Year Staging" allows you to establish the stages of accounting activity, and associated timeframes, that define a BFY. The allowed accounting activity may differ between each sequential BFY stage.

BFY Staging Examples

Delivered BFY Staging Profiles:

- Single Year Appropriations (Accounting Control Model A)
- Single Year Appropriations (Accounting Control Model B)
- Continuing Appropriations (Accounting Control Model C)
- Multi-year Appropriations (Accounting Control Model D)

Stages: (Model A)

- Establish Budget Balances
- Begin the Procurement Process
- Conduct Normal Processing (CNP)
- CNP with Limitations on Requisition Activity
- User Community Year-End Processing
- Controller's Office Year-End Processing
- New Year Processing Against Prior BFY Obligations
- Annual Closing

Accounting Activity Categories: (Standard)

- Spending
- Revenue
- Balance Sheet Account
- Non-Accounting

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BFY Staging

Adopt, modify, or define BFY Staging Profile(s)

Profile: Single Year Appropriations (Model A)

Stage 1: Establish Budget Balances

Stage 2: Begin Procurement Process

Stage 3: Conduct Normal Processing

Event (Doc): Request from an external vendor (RQS, GAP)

Event (Doc): Order from an external vendor (PO, DO, GAE, CT, SC)

Event (Doc): Authorize payment (PRC, PRM, GAX)

AFY vs. BFY: =, >, <, unrestricted

Referencing: required, not allowed, unrestricted

Line Action: incre

.

.

.

Stage 8: Annual Closing

BFY Staging is applied to accounting activity categories:

▸ Spending

▸ Revenue

▸ Balance Sheet Account

▸ Non-Accounting

Profiles are assigned to each accounting activity type by:

▸ Budget Fiscal Year

▸ Fund

▸ Department

▸ Appropriation Unit (Spending)

▸ Revenue Source (Revenue)

▸ Balance Sheet Account (BSA & Non-Accounting)

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BYSTPFSL

Close
✓ **Staging Profile**
Stage Definition
Document Events
Spending
Revenue
Balance Sheet
Non-Accounting

Budget Fiscal Year Staging Profile Select

Browse Clear

1

Staging Profile : [   ]

Staging Profile Name : [   ]

Staging Profile	Staging Profile Name
A	Single Year Appropriations (Accounting Control Model A)
B	Single Year Appropriations (Accounting Control Model B)
C	Continuing Appropriations (Accounting Control Model C)
D	Multi Year Appropriations (Accounting Control Model D)

Copy   First Prev Next Last

View BFY Staging Profile

Add BFY Staging Profile

BFY Staging Profile

2

Staging Profile Summary

Save Undo Delete Insert Copy Paste   First Prev Nex

* Staging Profile : [A]

* Staging Profile Name : [Single Year Appropriatio]

Select Another BFY Staging Profile

Spending BFY Stage Definitions   Revenue BFY Stage Defi

BFY Staging Profile

Stages **3**

Staging Profile	Staging Profile Name	Stage	Description
A	Single Year Appropriations (Accounting Control Model A)	1	Establish Budget Balances
A	Single Year Appropriations (Accounting Control Model A)	2	Begin the Procurement Process
A	Single Year Appropriations (Accounting Control Model A)	3	Conduct Normal Processing
A	Single Year Appropriations (Accounting Control Model A)	4	Conduct Normal Processing with Limitations on Requisition Activity
A	Single Year Appropriations (Accounting Control Model A)	5	User Community Year-end Processing
A	Single Year Appropriations (Accounting Control Model A)	6	Controller's Office Year-end Processing
A	Single Year Appropriations (Accounting Control Model A)	7	New Year Processing against Prior Budget Fiscal Year Obligations
A	Single Year Appropriations (Accounting Control Model A)	8	Annual Closing

First Prev Next Last

Stage Details

Save Undo Delete Insert Copy Paste

Staging Profile : A

Single Year Appropriations (Accounting Control Model A)

Stage : 1

Highlights

▸ First step is to review and adopt and/or set up profiles

▸ Review and adopt and/or set up stage details of the profile including the number of stages

BYSTPFSL

BFY Staging Profile

Close
✓ **Staging Profile**
✓ **Stage Definition**
✓ **Document Events**
Spending
Revenue
Balance Sheet
Non-Accounting

Document Events

Staging Profile	Stage	Doc Code	Event Type	Referencing	AFY versus BFY	Line Action
A	5	GAE	PR07	Not Allowed	Posting FY must be BFY	Decreases Only
A	5	MA	PR04	Not Allowed	Posting FY must be BFY	Increases Only
A	5	MA	PR04	Not Allowed	Posting FY must be greater than BFY	Increases Only
A	5	PO	PR05	Not Allowed	Posting FY must be BFY	Decreases Only
A	5	PO	PR05	Not Allowed	Posting FY must be greater than BFY	Decreases Only
A	5	PO	PR07	Not Allowed	Posting FY must be BFY	Decreases Only
A	5	POB	PR05	Not Allowed	Posting FY must be BFY	Decreases Only
A	5	POB	PR05	Not Allowed	Posting FY must be greater than BFY	Decreases Only
A	5	POB	PR07	Not Allowed	Posting FY must be BFY	Decreases Only
A	5	RQS	PR05	Not Allowed	Posting FY must be BFY	Decreases Only

First Prev Next Last

Highlights

▸ Links event types to stage profile and documents

▸ AFY vs. BFY: <, >, =, unrestricted

▸ Referencing rules: Required, Not Allowed, Unrestricted

▸ Line Actions: Increases Only, Decreases Only, Unrestricted

Document Event Details

Save Undo Delete Insert Copy Paste   Search

Staging Profile : A

Single Year Appropriations (Accounting Control Model A)

Stage : 5

User Community Year-end Processing

Doc Code : GAE

General Accounting Encumbrance

Event Type : PR07

Order - Non Accounting

AFY versus BFY : Posting FY must be BFY

Referencing : Not Allowed

Line Action : Decreases Only

Spending BFY Stage Definitions   Revenue BFY Stage Definitions   Balance Sheet Account BFY Stage Definitions   Non-Accounting BFY Stage Definitions

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BYSTPFSL

Close
- ✓ Staging Profile
- ✓ Stage Definition
- ✓ Document Events
- ✓ Spending
- ✓ Revenue
- ✓ Balance Sheet
- ✓ Non-Accounting

BFY Staging Profile

Spending Assignment Details

Budget FY	Fund	Department	Appr	Staging Profile	Staging Profile Name
2001	ALL	ALL	ALL	A	Single Year Appropriations (Accounting Control Model A)

BFY Staging Profile

Revenue Assignment Details

Budget FY	Fund	Revenue Source	Department	Staging Profile	Staging Profile Name
2001	ALL	ALL	ALL	A	Single Year Appropriations (Accounting Control Model A)
2002	ALL	ALL	ALL	A	Single Year Appropriations (Accounting Control Model A)

BFY Staging Profile

Balance Sheet Assignment Details

Budget FY	Fund	BSA	Department	Staging Profile	Staging Profile Name
2001	ALL	ALL		A	Single Year Appropriations (Accounting Control Model A)
2002	ALL	ALL		A	Single Year Appropriations (Accounting Control Model A)
2003	ALL	ALL		A	Single Year Appropriations (Accounting Control Model A)

BFY Staging Profile

Non-Accounting Assignment Details

Budget FY	Fund	BSA	Department	Staging Profile	Staging Profile Name
2001	ALL	ALL		A	Single Year Appropriations (Accounting Control Model A)
2002	ALL	ALL		A	Single Year Appropriations (Accounting Control Model A)
2003	ALL	ALL		A	Single Year Appropriations (Accounting Control Model A)
9999	ALL	ALL		D	Multi Year Appropriations (Accounting Control Model D)
2000	ALL	ALL		A	Single Year Appropriations (Accounting Control Model A)
2004	ALL	ALL		A	Single Year Appropriations (Accounting Control Model A)

Copy   First Prev Next Last

Spending BFY Stage Definitions   Revenue BFY Stage Definitions   Balance Sheet Account BFY Stage Definitions   Non-Accounting BFY Stage Definitions

Highlights

▸ These four sections display, for view-only, the Assignment Details by BFY

▸ These sections are not hierarchical

▸ **Assign Staging Profile** to four accounting activity types by BFY, Dept, Fund, BSA, APPR, RSRC **using the Stage Definition links at the bottom** of each BYSTPFSL section. **Set stage date ranges** from these pages as well.

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Spending BFY Stage Definition

Profile Assignments

Budget FY	Fund	Department	Appr	Staging Profile	Staging Profile Name
2001	ALL	ALL	ALL	A	Single Year Appropriations (Accounting Control Model A)
2002	ALL	ALL	ALL	A	Single Year Appropriations (Accounting Control Model A)
2003	ALL	ALL	ALL	A	
9999	ALL	ALL	ALL	D	
2000	ALL	ALL	ALL	A	

First Prev Next Last

Profile Assignment Details

Save Undo Delete Insert Copy Paste Search

Budget FY : 2001
Fund : ALL
Department : ALL
Appr : ALL
Staging Profile : A
Single Year Appropriations (A

BFY Staging Profiles
Revenue BFY Stage Definitions Balance Sheet Acco

Close
✓ Profile Assignments
✓ Stages
✓ Document Events

BYSTDFSP

Spending BFY Stage Definition

Stages

Staging Profile	Budget FY	Fund	Department	Appr	Stage	Stage Start Date	Stage End Date
A	2001	ALL	ALL	ALL	1	4/1/00	5/31/00
A	2001	ALL	ALL	ALL	2	6/1/00	6/30/00
A	2001	ALL	ALL	ALL	3	7/1/00	5/31/01
A	2001	ALL	ALL	ALL	4	6/1/01	6/30/01
A	2001	ALL	ALL	ALL	5	7/1/01	8/14/01
A	2001	ALL	ALL	ALL	6	8/15/01	10/31/01
A	2001	ALL	ALL	ALL	7	11/1/01	12/31/01

First Prev Next Last

Stage Details

Save Undo Delete Insert Copy Paste Search

Staging Profile : A
Single Year Appropriations (Accounting Control Model A)
Budget FY : 2001
Fund : ALL
Department : ALL
Appr : ALL
Stage : 1
Establish Budget Balanc
Stage Start Date : 4/1/00
Stage End Date : 5/31/00

Revenue BFY Stage Definitions Balance Sheet A

Spending BFY Stage Definition

Document Events

Staging Profile	Stage	Doc Code	Doc Name	Event Type	Event Type Name	Referencing	AFY versus BFY	Lin Acti
A	1	BG2XCA1	ADV 2.x CA 1	BG01	Adopt An Expense Budget	Not Allowed	Posting FY must be less than BFY	Unrestr
A	1	BG2XCA1	ADV 2.x CA 1	BG02	Allocate An Expense Budget	Not Allowed	Posting FY must be less than BFY	Unrestr
A	1	BG2XCA1	ADV 2.x CA 1	BG04	Carry Forward An Expense Budget	Not Allowed	Posting FY must be less than BFY	Unrestr
A	1	BG2XCA1	ADV 2.x CA 1	BG05	Revert An Expense Budget	Not Allowed	Posting FY must be less than BFY	Unrestr
A	1	BG2XCA1	ADV 2.x CA 1	BG06	Transfer In An Expense Budget	Not Allowed	Posting FY must be less than BFY	Unrestr
A	1	BG2XCA1	ADV 2.x CA 1	BG07	Transfer Out An Expense Budget	Not Allowed	Posting FY must be less than BFY	Unrestr
A	1	BG2XCA1	ADV 2.x CA 1	BG21	Establish A Revenue Budget	Not Allowed	Posting FY must be less than BFY	Unrestr
A	1	BG2XCA2	ADV 2.x CA 2	BG01	Adopt An Expense Budget	Not Allowed	Posting FY must be less than BFY	Unrestr
A	1	BG2XCA2	ADV 2.x CA 2	BG02	Allocate An Expense Budget	Not Allowed	Posting FY must be less than BFY	Unrestr
A	1	BG2XCA2	ADV 2.x CA 2	BG04	Carry Forward An Expense Budget	Not Allowed	Posting FY must be less than BFY	Unrestr

Copy   First Prev Next Last

Revenue BFY Stage Definitions Balance Sheet Account BFY Stage Definitions Non-Accounting BFY Stage Definitions

Highlights

▸ Assign staging profiles for Spending

▸ Make profile assignments to COA elements

▸ Assign time periods to stages

▸ Document events 'view' displays allowed documents and event types as previously set

eMARS Management Administrative & Reporting System

Highlights

AAPDC

▸ Establishes the accounting periods in which use of documents are allowed, by document code.

▸ The DCTRL table settings can make use of these accounting period restrictions or ignore them.

▸ Such time restrictions can augment (or substitute for) BFY Staging functionality
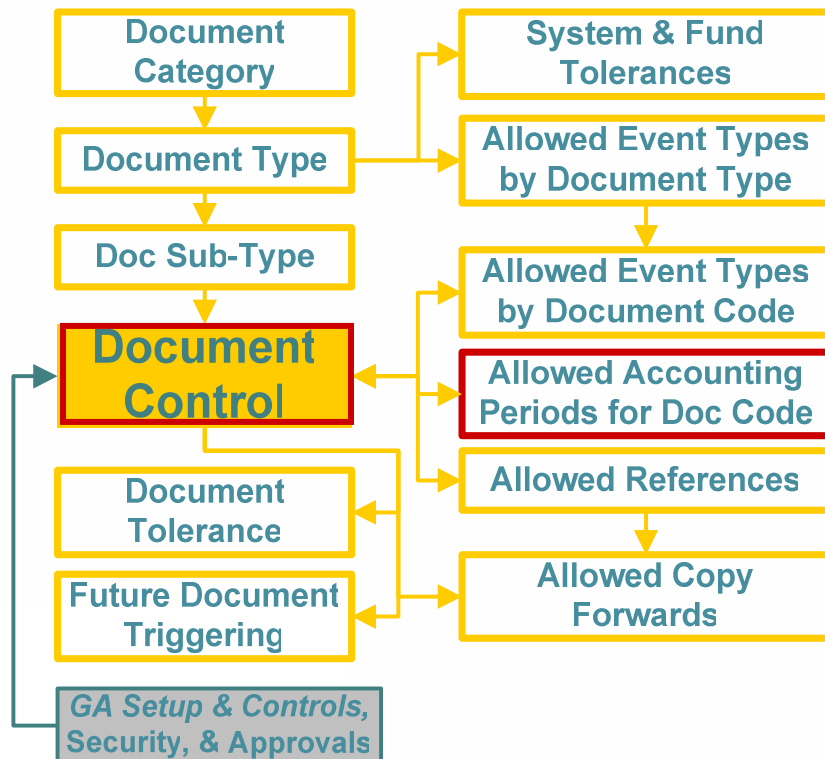
Configuration Points

▸ Define allowable Document Code, FY, and Period combinations

Links

▸ Optionally referenced by DCTRL

Document Category

System & Fund Tolerances

Document Type

Allowed Event Types by Document Type

Doc Sub-Type

Allowed Event Types by Document Code

Document Control

Allowed Accounting Periods for Doc Code

Document Tolerance

Allowed References

Future Document Triggering

Allowed Copy Forwards

GA Setup & Controls, Security, & Approvals

Allowable Accounting Periods for Document Code Quick Sea

Document Code	Document Code Name	Fiscal Year	Fiscal Period
GAX	GA Exp	2003	1
GAX	GA Exp	2003	2
GAX	GA Exp	2003	3
GAX	GA Exp	2003	4
GAX	GA Exp	2003	5

First Prev Next Last

Save Undo Delete Insert Copy Paste Search

AAPDC

* Document Code : GAX

* Fiscal Year : 2003

* Fiscal Period : 1

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Document Control

DCTRL

	Document Type	Document Code	Document Name	Active	Effective From	Effective To
✓	ABS	GAX	General Accounting Expense/Expenditure	Yes		
	IET	IET	Internal Exchange Transaction	Yes		
	ITA	ITA	Internal Transaction Agreement	Yes		
	ITI	ITI	Internal Transaction Initiator	Yes		
	JV	JV	Standard Journal Voucher	Yes		

First Prev Next Last

Save Undo Delete Insert Copy Paste   Search

▶General Information

AETDC ← **AETDT** — **AAPDC**

▼General Options

Def Event Type :	AP01
Doc Entry Start :	
Doc Entry End :	
Document Minimum :	$0.00
Document Maximum :	$0.00
Min/Max Severity :	Warning
Vendor Rule :	Required
Customer Rule :	Prohibited
Ref Document Rule :	Optional
COA Precedence :	Additional codes allowed
Rollup Precedence :	None
Rollup Exception(s) :	
Rollup Exception Precedence :	None

Time Restriction Severity :	Warning
Time Restriction :	Limited by Account
Override Pend Phase Ind :	Required before rea
Submit Phase :	Pending
Workflow Process Indicator :	Internal
Workflow Asynchronous Processing :	☐
*Service Date Severity :	No Error
Infer Codes :	☑
Journal Posting Control :	Synchronous Posti

DARF

DCFCTL

Configuration Points
▸ Set rules & options for document-specific edits, overrides, etc., that define the document processing behavior

Notes
▸ Service Date Severity applies to the ITI, ITA, IET, PR, ABS, and MD document types

Links
▸ Default Event Type referenced from AETDC
▸ Reference Rule applied to DARF entries

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DCTRL

Document Control

Document Type	Document Code
✓ ABS	GAX
IET	IET
ITA	ITA
ITI	ITI
JV	JV

First Prev Next Last

Save Undo Delete Insert Copy Paste   Sea

▶General Information

▶General Options

▼Required Elements

Document Name Required : ☐		Offline Required : ☐
Doc Description Required : ☐		Auto Numbering Required : ☐
AI Description Required : ☐		Document Unit Code Required : ☐
Event Type Required : ☑		Vendor Invoice Required : ☐

▼Allowable Elements

Future Doc Date Allowed : ☐
Past Doc Date Allowed : ☑
Future Acctg Prd Allowed : ☐
Past Acctg Prd Allowed : ☑
Future FY Allowed : ☐
Past FY Allowed : ☑
Offset Override Allowed : ☑
Soft Close Override Allowed : ☐
Hard Close Override Allowed : ☐
Inactive COA Codes Allowed : ☐

New Action Allowed : ☑
Modify Action Allowed : ☑
Submit Action Allowed : ☑
Cancellations Allowed : ☑
Online Catalog Creation Allowed : ☑
Allow Budget Control Reduction : ☐
Allow Fund Balance Control Reduction : ☐
Allow Cash Balance Control Reduction : ☐
Override of BFY Staging Allowed : ☑
Change Closed Allowed : ☐
Recurring Transaction Allowed : ☑
Approval Override Allowed : ☐
TIN Number & Type for Miscellaneous Vendors : Required

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Management Administrative & Reporting System

Add new document to Budget FY Staging profile(s). Augment with date controls on AAPDC and DCTRL

- This exercise assumes that a BFY Stage Profile exists, to which you will add the new document code. If not, or if a new profile is needed, set up the basic profile (stages, doc-event combos [at least for new doc], stage dates and assignments).

- Add the new document/event combos to the appropriate BFY stages and set the business rules for each

- Copy/paste all of the records on AAPDC for the document that was previously cloned and change the doc code.

- Complete the remainder of the DCTRL record for the new document

Course flow:

Part 2

Creating A New Document Code

- Add to Document Control Table
- Add to Application Page Registration
- (If Needed) Create New HTML
- New Event Type Created?
  - Yes
  - Allowable Event Types for Document Type
  - Allowable Event Types for Document Code
  - BFY Profiles & Stage Document Events
- Automatic Document Numbering
- Application Resources
- Add Needed Entries to Default Event Types
- AP, MD, or DC Event Type Crosswalk
  - A/R
  - A/P
- If A/R or A/P document
- Workflow Needed
  - Yes
  - Approval Fields
  - Approval Conditions
  - Approval Setup
- Required Budget
  - Yes
  - Budget Posting Codes
- If Doc Type RQ, PO, SO, EV, RC, SR
  - Procurement Document Control
  - Procurement Type
- Allowable Accounting Periods for Document Code
- Document Allowable References
  - Tolerances
  - Document Code Tolerances

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Procurement Type Setup Overview

Procurement Document Control

Menu Quick Search

PRDOC

Document Type	Document Type Name	Document Code	Document Code Name
SO	Solicitation	RFB	Request for Bids
✓ SO	Solicitation	RFB_DP	Request for Bids

First Prev Next Last

Save Undo Delete Insert Copy Paste   Search

*Document Type : SO ▶   *Document Code : RFB_DP ▶

Document Type Name : Solicitation   Document Code Name : Request for Bids

Document Subtype : SO ▶

▼General Document Information

Require Effective Begin Date : ☐   Require Terms and Condition Template : ☐

Require Effective End Date : ☐   Require Terms and Conditions : ☐

Require Procurement Card Number : ☐   Require Payment Terms : ☐

MA/DO Required : ☐   Buysense Enabled : ☐

▶Reference

▶Contact

▶Master Agreement Specific

▶Solicitation Specific

▶Commodity General Information

▶Commodity Line Type Item Options

▶Commodity Line Type Service Options

▶Specifications

▶Tolerances

Notes

▸ This is a pre-loaded table in Advantage Procurement (for baseline document codes) where procurement specific controls are established for documents

▸ If Require Procurement Card Number is selected, then the procurement card number is required on transactions of this type.

▸ If MA/DO selected, then a master agreement and delivery order are required for the document type/document code combination.

▸ If Buysense Enabled selected, then Document Type/Document Code combination can be used in conjunction with AMS Shopper.

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& Reporting System

Doc-Level Configuration – Procurement Document Setup

PRDOC

Procurement Document Control

Menu Quick Search

Document Type	Document Type Name	Document Code	Document Code Name
SO	Solicitation	RFB	Request for Bids
✓ SO	Solicitation	RFB_DP	Request for Bids

First Prev Next Last

Save Undo Delete Insert Copy Paste   Search

*Document Type : SO   *Document Code : RFB_DP
Document Type Name : Solicitation   Document Code Name : Request for Bids
Document Subtype : SO

▶General Document Information

▼Reference
Require Reference Agreement : ☐
Require Reference Agreement Line Number : ☐
Require Board Award : ☐

▼Contact
Require Requester ID : ☑
Require Issuer ID : ☑

▼Master Agreement Specific
Renewal Notification Days Prior to Expiration : 20
Require Renewal Periods : ☐
Require Renewal Length : ☐
Require Renewal Period Unit : ☐
Require Minimum Order Amount : ☑
Require Maximum Order Amount : ☑
Not to Exceed Flag : ☑
Require Agreement Effective Date : ☐
Require Agreement Expiration Date : ☐

▶Solicitation Specific
▶Commodity General Information
▶Commodity Line Type Item Options
▶Commodity Line Type Service Options
▶Specifications
▶Tolerances

Configuration Points
▶ Select appropriate reference when the document is used
▶ Indicate if Requester / Issuer ID required on the document
▶ Indicate options if document is used as a Master Agreement

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PRDOC

Procurement Document Control

Menu Quick Search

Document Type	Document Type Name	Document Code	Document Code Name
SO	Solicitation	RFB	Request for Bids
✓ SO	Solicitation	RFB_DP	Request for Bids

First Prev Next Last

Save Undo Delete Insert Copy Paste   Search

*Document Type : SO
Document Type Name : Solicitation

*Document Code : RFB_DP
Document Code Name : Request for Bids
Document Subtype : SO

▶General Document Information

▶Reference

▶Contact

▶Master Agreement Specific

▼Solicitation Specific

Require Evaluation Criteria : ☐
Require Evaluation Criteria Template : ☐
Responses Viewable by All Bidders (Auction)? : ☐
Allow Response Viewing Before Close : ☐
Charge For Response : ☐
Duration Solicitation is Posted(Days) : 30

Suppress Evaluation Name : ☑
Post the Award Notification to Web : ☑
Max Days Prior to Closing for Questions : 0
Label Type : Not Applicable

▼Commodity General Information

Allow Partial Receipt of a Document : ☑
Default Commodity Line Type : Item
Require Valid Vendor Commodity : ☐
Allow Surplus : ☐
Require Commodity Code : ☑

Tax Profile Required : ☐
Require Retainage Terms : ☐
Default Amount on RC : ☑
Default Amount on IN : ☑
Match Indicator : None
Generate DO Commodity Lines By : MA Commodity Line

▶Commodity Line Type Item Options

▶Commodity Line Type Service Options

▶Specifications

▶Tolerances

Configuration Points

▸ Select appropriate options where document is a solicitation Document Type

▸ Select appropriate options and controls for general Commodity information

Notes

▸ If the Charge for Response option is selected, then Vendors are charged a fee for responding to the Solicitation.

▸ Suggest caution regarding using Default Amount flags

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Doc-Level Configuration – Procurement Document Setup

PRDOC

Procurement Document Control

Menu Quick Search

Document Type	Document Type Name	Document Code	Document Code Name
SO	Solicitation	RFB	Request for Bids
✓ SO	Solicitation	RFB_DP	Request for Bids

First Prev Next Last

Save Undo Delete Insert Copy Paste   Search

*Document Type : SO   *Document Code : RFB_DP

Document Type Name : Solicitation   Document Code Name : Request for Bids

Document Subtype : SO

▶General Document Information

▶Reference

▶Contact

▶Master Agreement Specific

▶Solicitation Specific

▶Commodity General Information

▼Commodity Line Type Item Options

Require Shipping Location : ☐   Require Free On Board : ☐
Require Billing Location : ☐   Require Delivery Type : ☐
Require Shipping Method : ☐   Require Service Dates : ☐

▼Commodity Line Type Service Options

Require Shipping Location : ☐   Require Free On Board : ☐
Require Billing Location : ☐   Require Delivery Type : ☐
Require Shipping Method : ☐   Require Service Dates : ☐

▶Specifications

▶Tolerances

Configuration Points

▸ Select appropriate options for the Commodity Line within the document where Line Type = Item or Service

Notes

▸ If an option is selected, then the field is required for the Document Type/Document Code combination.

▸ The fields in these two sections are located on the Commodity detail section on Procurement documents.

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Procurement Document Control

Menu Quick Search

Document Type	Document Type Name	Document Code	Document Code Name
SO	Solicitation	RFB	Request for Bids
✓ SO	Solicitation	RFB_DP	Request for Bids

First Prev Next Last

Save Undo Delete Insert Copy Paste   Search

*Document Type : SO   *Document Code : RFB_DP

Document Type Name : Solicitation   Document Code Name : Request for Bids

Document Subtype : SO

▶ **General Document Information**

▶ **Reference**

▶ **Contact**

▶ **Master Agreement Specific**

▶ **Solicitation Specific**

▶ **Commodity General Information**

▶ **Commodity Line Type Item Options**

▶ **Commodity Line Type Service Options**

▼ **Specifications**

Require Special Handling Instructions : ☐   Require Warranty Type : ☐
Require Hazardous Materials Information : ☐   Require Warranty Duration : ☐
Require Packing Instructions : ☐   Require Manufacturer : ☐
Require Additional Handling Information : ☐   Require Model Number : ☐

▼ **Tolerances**

Tolerance Amount Under $: [ ]   Require Quantity Underage Tolerance : ☐
Tolerance Amount Over $: [ ]   Require Quantity Overage Tolerance : ☐
Tolerance Amount Under % : [ ]   Require SC Underage Tolerance : ☐
Tolerance Amount Over % : [ ]   Require SC Overage Tolerance : ☐

PRDOC

Configuration Points

▸ Select appropriate options within the Specifications section

▸ Identify the tolerances to be employed when this document is used

Notes

▸ You can specify the amount or percentage that the Commodity line can be under/over the amount of the referenced line.

▸ You can specify whether tolerances must be specified for all commodity lines.

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Procurement Type Setup Overview

Vendor Performance Evaluation Template (PETMPL) table

Manager (MANG) table

Procurement Complexity (CMPLX) table

Procurement Type

Procurement Type (PRCUTYP) table

Procurement States

Vendor Performance Evaluation Criteria (PECRIT) table

Procurement Folder

Procurement Dollar Range (WRNG) table

Milestones

Documents

Milestone (MLSTN) table

Procurement Document Control (PRDOC) table
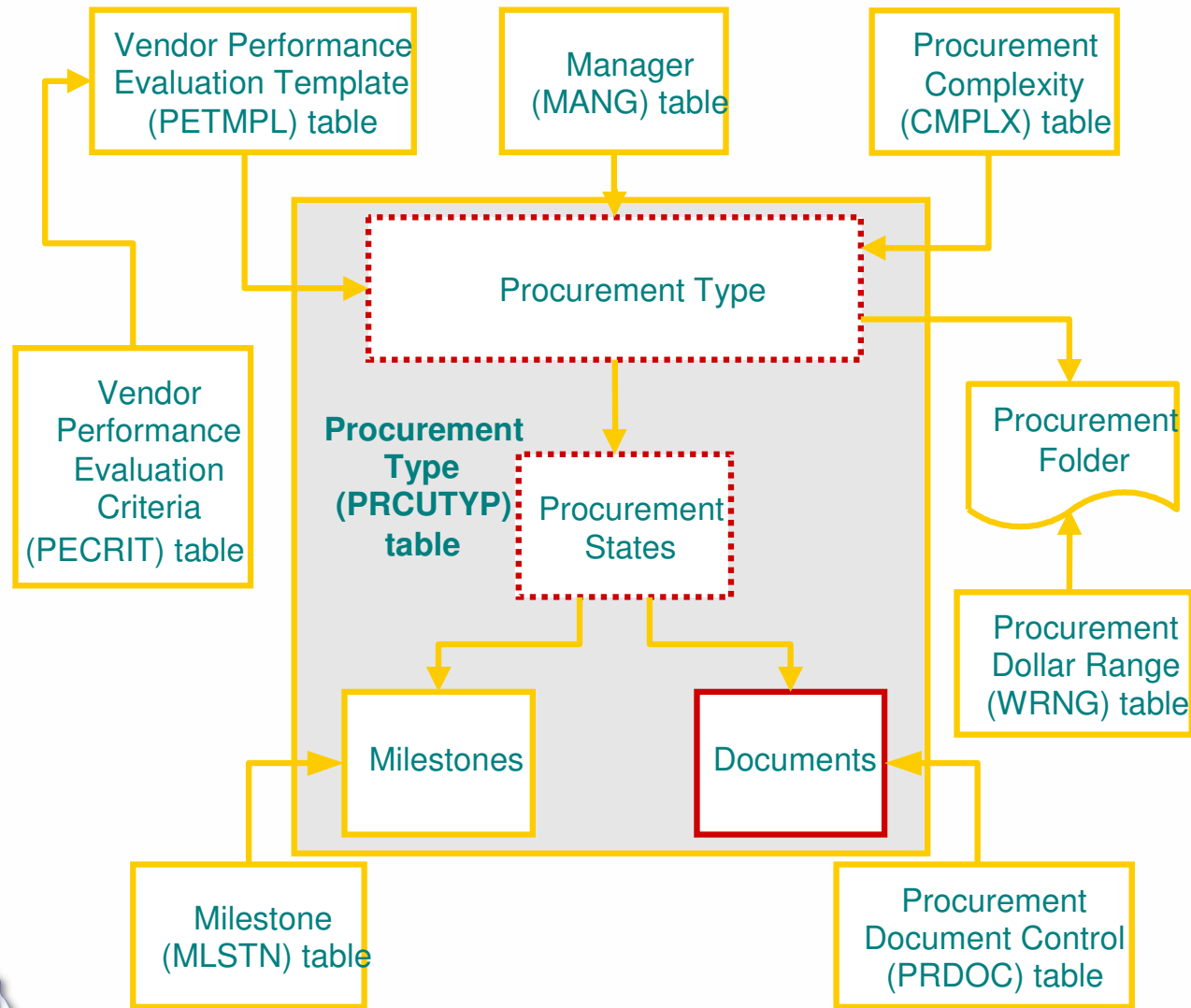
PRCUTYP

Close
Procurement Type
States
Milestones
✓ Documents

Procurement Type

Procurement Type

	Procurement Type	Procurement Type Name	Complexity	Manager Name
✓	1	Unclassified	3	Laura Tinsley
	2	Delivery Order	3	Laura Tinsley
	3	Decentralized Purchase	3	Laura Tins
	4	Purchase Order	3	Cathy Ros
	5	Master Agreement	3	Laura Tins
	6	Contract	3	Laura Tins
	7	Professional Services	3	Laura Tins
	8	Construction	3	Laura Tins
	9	Capital Equipment	3	Laura Tins
	10	Lease Purchase	3	Laura Tins

First Prev Next Last

Details
Save Undo Delete Insert Copy Paste   Search

Procurement Type : 1

Procurement Type Name : Unclassified

Description : Procurements that do not fit any other defined procureme

Complexity : 3

Manager : latinsle

Manager Name : Laura Tinsley

Peformance Evaluation Template :

Performance Evaluation Template Name :

Notes

▸ For each Procurement Type, milestones and documents are assigned within Procurement States to guide the Buyer and Manager on the activities that need to be accomplished

Notes

▸ Defining Procurement Types consists of the following steps:

  ▸ **Step 1:** Establish Procurement Types
  ▸ **Step 2:** Assign Procurement States
  ▸ **Step 3:** Assign Milestones within each Procurement State
  ▸ **Step 4:** Assign Documents within each Procurement State

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PRCUTYP

Close
✓ Procurement Type
States
Milestones
✓ Documents

Procurement Type

Menu Quick Search

State

State	Default Document Code
✓ Requisition	RQS
Award	PO
Post Award	RC

First Prev Next Last

Details
Save Undo Delete Insert Copy Paste   Search

Procurement Type : 299

Procurement Type Name : Automative PT

None
Requisition
Solicitation
Solicitation Response
Evaluation
Award
Post Award

State : Requisition

Default Document Code : RQS

Notes

▸ Each Procurement Type must have the Award State and Post Award state added to this section, the rest are optional.

▸ Default Document Codes are assigned to each state and are first setup on the Procurement Document Control (PRDOC) table.

▸ Milestones are setup for each State on the Milestone section of this table.

▸ Allowable documents for each State are defined on the Documents section of this table.

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PRCUTYP

Close
✓ **Procurement Type**
✓ **States**
✓ **Milestones**
Documents

Procurement Type

Document

State	Document Code
✓ Requisition	RQS
Requisition	UR

First Prev Next Last

Details

Save Undo Delete Insert Copy Paste   Search

Procurement Type : 299

Procurement Type Name : Automative PT

State : Requisition ▼

Document Code : RQS ▷

Notes

▶ Only use Save when the last Document has been inserted for an individual Procurement State

Configuration Points

Step 4: Assign Documents Within Each Procurement State

▶ Select Insert

▶ Select Document Code

▶ Select Insert

▶ Select Document Code

▶ Save

Notes

▶ Be sure that the correct Procurement State is selected in the State tab before selecting the Documents tab

▶ Add all allowable documents for each state of your procurement type.

▶ Users can only create the documents assigned to the particular state for the specific Procurement Type, when they are using the New Document action within the State Viewer.

Add the new document to the Procurement Document Control and Procurement Type tables

- Go to PRDOC and search for the document that was previously cloned
  - Copy/paste the document and change the document code (and type/sub-type) as needed.
  - Configure the remainder of the record to reflect any differences in control from the document that was copied.
- Go PRCUTYP and add the new document code to the appropriate Procurement State(s) for each applicable Procurement Type.

Course flow:

Part 2

Creating A New Document Code

```
        Add to Document
     ✔  Control Table
              │
              ▼
        Add to Application          (If Needed)
     ✔  Page Registration ◄──── ✔  Create
              │                      New HTML
              │
  ┌──────┬────┴────┬──────────┬──────────┬──────────┬──────────┐
  ▼      ▼         ▼          ▼          ▼          ▼          ▼
```

```
   ✔                                          ✔            ✔
New Event      Automatic     ┌──────────┐   Workflow   If Doc Type   Allowable      Document
Type Created?  ✔ Document    │ ✔ Appli- │   Needed     RQ, PO, SO,   ✔ Accounting   ✔ Allowable
               Numbering     │ cation   │              EV, RC, SR    Periods for    References
                             │ Resources│                            Document Code
                             └──────────┘
    │                            │            │            │            │
   Yes                                       Yes           │            ▼
    │                                         │            │         Tolerances ✔
    ▼                                         ▼            ▼            │
Allowable Event   Add Needed              Approval    Procurement       ▼
✔ Types for       ✔ Entries to           Fields      ✔ Document    Document Code
Document Type     Default Event             │         Control       ✔ Tolerances
    │             Types                      ▼            │
    ▼               │                    Approval         ▼
Allowable Event     ▼                    Conditions   Procurement
✔ Types for     AP, MD, or DC              │          ✔ Type
Document Code   ✔ Event Type               ▼
    │           Crosswalk              Approval
    ▼               ▲        A/R        Setup
BFY Profiles &      │
Stage Document    A/P                 ✔ Required Budget
✔ Events            │                       ▲
    │               ▼                       │
    └──────►  ✔ If               Yes
             A/R or A/P                     │
             document        Budget
                          ✔ Posting
                             Codes
```

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Process Overview

Security controls are typically set up in the order shown in the diagram below.

Resource Groups are created to which all Application Resources are assigned. Both are delivered setup as part of baseline Advantage and are configurable to tailor security for each client.

Security Roles are defined for various user groups by their functional tasks/responsibilities and similar security requirements. **Security Roles and Resource Groups are mapped via Access Control to meet the security and authorization requirements of the organization.** Users are assigned the Security Role(s) they need to grant them needed authorization/access to perform their tasks.

4 Access Control

- Foreign Organization definition
- Allowed Actions & Functions
- Approval Levels
- Field Level Security
- Activate Row Filtering (tables)
- Governing Login-access Rules

1 Resource Groups

Collection of Application Resources
- Reference Tables
- Business Area Documents
- Inquiries
- Etc

3 Roles

Similar functional tasks and security requirements
- Business Area Manager
- Business Area User
- Administrator
- Decentralized Security Admin
- Etc

2 Application Resources

Pages

Documents
- Lines
- Fields

Tables/Queries
- Rows
- Fields

5 Users
- Add/Remove
- Assign Roles
- Set/change passwords
- Grant/deny login access
- Password Reset
- Etc

- Security is setup in the AMS Advantage *Administration* application, which is shared by the Financial & HRM applications.

3.4.x+ ADVANTAGE

AMS Advantage ADMIN

AMS Advantage FM   AMS Advantage HRM
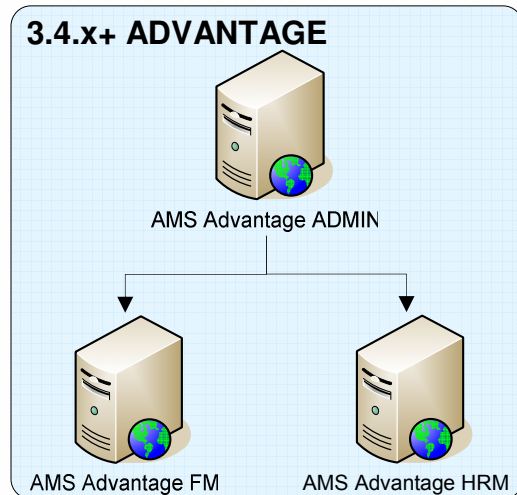
- Security provides both user Authentication to access the system, and Authorization to resources and organizations within the system
- Authorization (access control) may be defined from as high as a Resource Group (tables/docs) down to a specific row and/or field on an individual resource.

- Resource Group and Security Role definitions are unlimited
- Home organization authorization is defined at the user level. Foreign organization authorization is defined by Security Role and Resource Group combination.
- The ability to assign users one or more Roles offers the ability to grant unique authorizations among users with tight and consistent controls that are relatively easy to change and maintain.
- Authorization is granted by Security Role and Resource Group combinations
- Supports multiple security approaches

Application Resources & Resource Groups

Setup reference tables:

▶ Resource Groups (SCRGRP)

▶ Application Resources (SCRSRC)

Highlights:

▶ Application Resources are delivered and include all tables, inquiries, and documents. (Page resources are recommended and coming as part of the delivered data (v. 3.6?))

▶ Application Resources (tables, queries, document, pages) are all categorized into Resource Groups.

▶ Most security is applied at the resource group level vs. by individual resource

▶ Security setup differs significantly depending on your security approach

Resources & Resource Grouping

▶ Resource Groups & Security Approaches
  ▶ Page Security
  ▶ Navigational Security
  ▶ Table Security

▶ Resources & Resource Group Setup

Security Roles

Authorization / Access Control

▶ Foreign Organizations

▶ Access Control: Resource access, Actions, Approval Levels

▶ Secured Fields

▶ Table Row Filtering

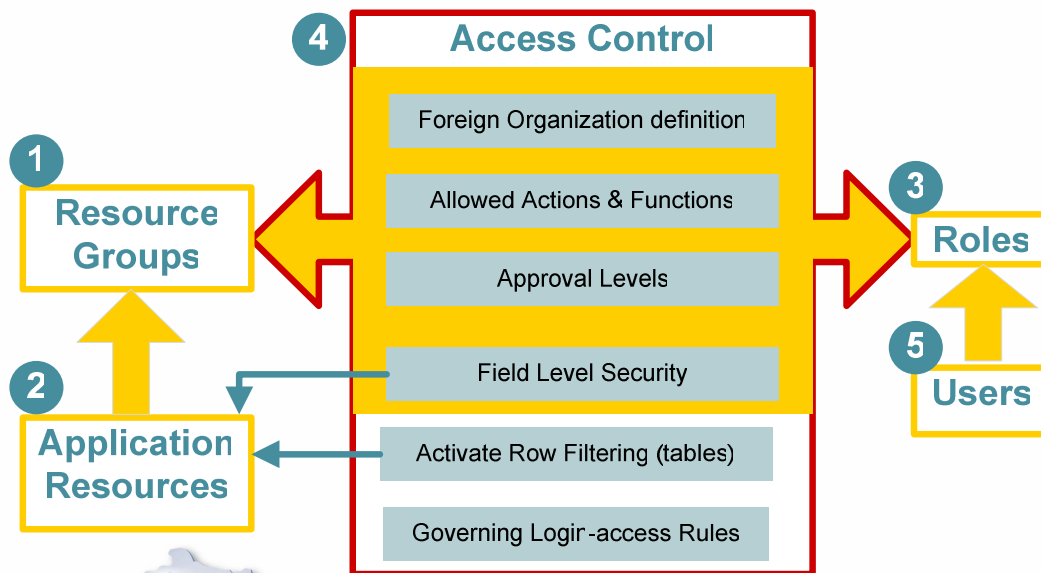▶ User Setup

▶ Authentication

▶ User Setup/Maintenance

▶ User Home Organization

▶ Security document vs. table updates

▶ Security Action Logging

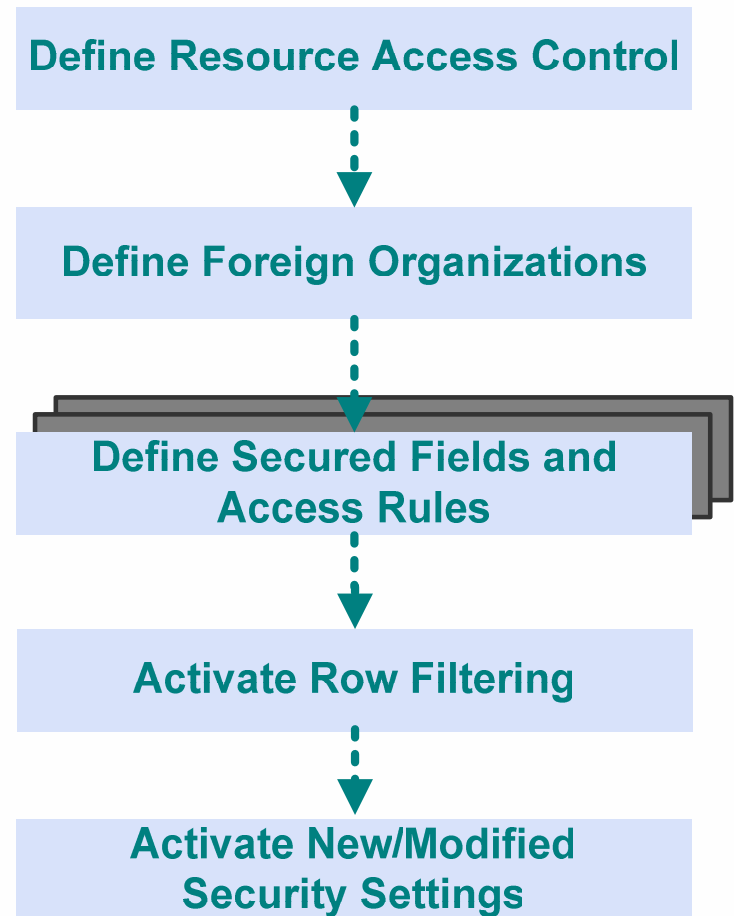**(1)** Resource Groups

(2) Application Resources

(4) Access Control

(3) Roles

(5) Users

Understanding Resource Types

External Presentation

APPLICATION PAGES
(IN_PAGES)

Inquiries

Activity Folders

Reference Tables

Documents

Internal Presentation

APPLICATION RESOURCES
(R_SC_APPL_RSRC)

Query Resource

Document Resource

Table Resource

Page Resource

Understanding Resource Types

External Presentation

APPLICATION PAGES (IN_PAGES)	

- Inquiries
- Activity Folders
- Reference Tables
- Documents

Query and Reference Table Resources fill pages with data

Internal Presentation
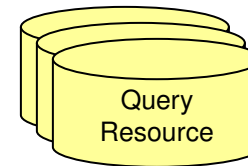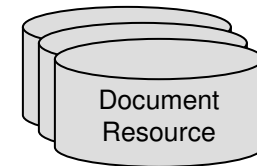
APPLICATION RESOURCES (R_SC_APPL_RSRC)	

- Query Resource
- Document Resource
- Table Resource
- Page Resource
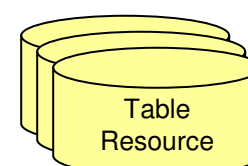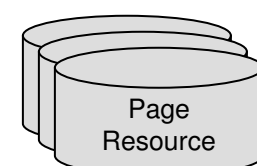
Understanding Resource Types

External Presentation

APPLICATION PAGES
(IN_PAGES)
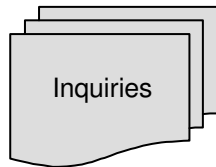
Inquiries
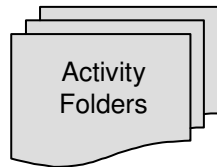
Activity Folders
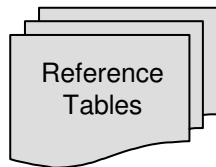
Reference Tables
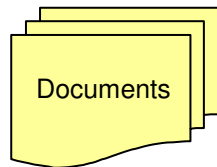
Documents

Document Resources are used to secure document pages

Internal Presentation
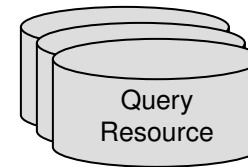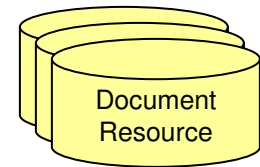
APPLICATION RESOURCES
(R_SC_APPL_RSRC)

Query Resource

Document Resource

Table Resource

Page Resource

166
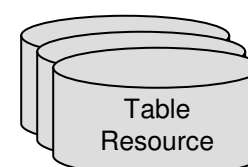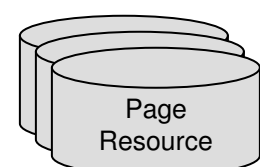
Understanding Resource Types

External Presentation

Internal Presentation

APPLICATION PAGES
(IN_PAGES)
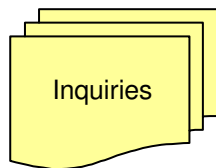
Inquiries
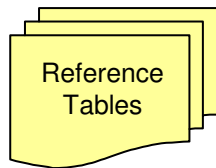
Activity Folders

Reference Tables

Documents

Page Resources are used to secure pages to
- Activity Folders
- Ref. Tables
- Inquiries

APPLICATION RESOURCES
(R_SC_APPL_RSRC)

Query Resource

Document Resource

Table Resource

Page Resource

Understanding Resource Types

External Presentation

Internal Presentation

APPLICATION PAGES
(IN_PAGES)

APPLICATION RESOURCES
(R_SC_APPL_RSRC)

Inquiries

Activity Folders

Reference Tables

Documents

Query Resource

Document Resource

Table Resource

Page Resource

Query and Reference Table Resources fill pages with data

Document Resources are used to secure document pages

Page Resources are used to secure pages to
- Activity Folders
- Ref. Tables
- Inquiries
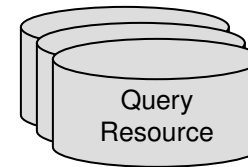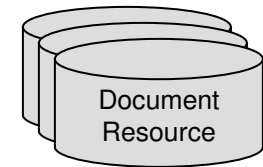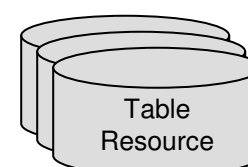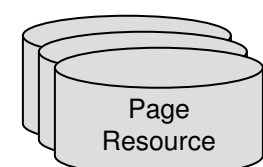
Object Dependencies

▸ Pages and Documents retrieve information from tables and queries

▸ Tables / Queries are used by multiple pages

▸ Update access to a 'page' must be honored by update access to corresponding Tables and/or Queries.

▸ Update access to documents must be honored by update access to corresponding Table and/or Queries that are updated by the documents.

▸ Mixing resource types within a Resource Group is not recommended.

  ▸ Mixing resources in a group increases risk for Page-to-Table dependency errors

  ▸ More difficult to account for dynamic changes

  ▸ More difficult to account for release upgrades

Pages + Documents

Tables + Queries
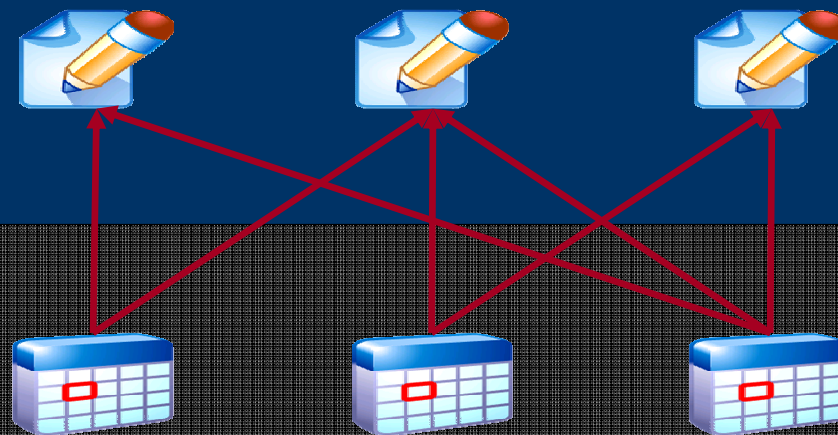
Security Approaches

▶ **Page Security Approach**: Users' access to view and perform actions on tables, queries, and documents is primarily secured at the 'page' level (i.e., presentation/external level) vs. the data-object level

▶ **Navigational Security Approach:** Users' access to tables and queries is secured primarily via Workgroups/Workspaces (i.e., navigation). Documents (which can be treated as 'pages' too) are still secured at the data-object level.

▶ **Data-Object Security Approach:** Users' access to all resources (tables, queries, & documents) is secured via the data-objects themselves (i.e., data/internal level).

Page Security Approach – Recommended most often

- Users' access to view and perform actions on tables, queries, and documents is secured at the 'page' level (i.e., presentation/external level) vs. the data-object level
- Probably the quickest, easiest, and most flexible approach from an analysis, implementation, and maintenance perspective
- A set of standardized tools are <u>soon to be 'delivered</u>,' including:
  - Day-zero security data
  - Security Configuration Templates
  - Analysis Tools
    - Analysis spreadsheet
    - XML generator
  - DB Scripts
    - Identification of potentially corrupt data
    - Unique ID synchronization
    - Migration of security configurations
- Organization and field-level security is still enforced at the data-object level
- Can be augmented with navigational and/or data-object security
- May generate/require more resource groups than the other security approaches.
- Often simplifies and reduces the number of required Foreign Organization table entries (a potentially significant setup/maintenance objective!)

Page Security Approach –

Resource Grouping Considerations

Table Groups

Query Groups

Document Groups

Page Groups

‣ Data setup mostly standard
‣ Dependencies managed.
‣ Significant resource consolidation; Resource Groups minimized
‣ Minimal controls
‣ Static configuration

‣ Independent resource control. Many Resource Groups.
‣ Controls enforced at this level
‣ Facilitates easy client-specific changes in resource grouping
‣ No/little concern over data object dependencies. (Usually the easiest setup & maintenance)

ANY (Role) or Each Role:
Full edit access. No organizational checks

Reference Tables (DO Group)	Queries (DO Group)	Pages (Page Groups)
Nearly All Tables (INT_TBL)	Nearly All Queries (INT_QRY)	[All 2nd Navigation Panel Pages]

Foreign Organization Authority
(DOC_SEC)
[Org Secured Tables]
[Org Secured Queries]

Also consider establishing Security Roles that 'package' Resource- and Organization-authority

Page Security Approach –
Resource Group Setup Overview
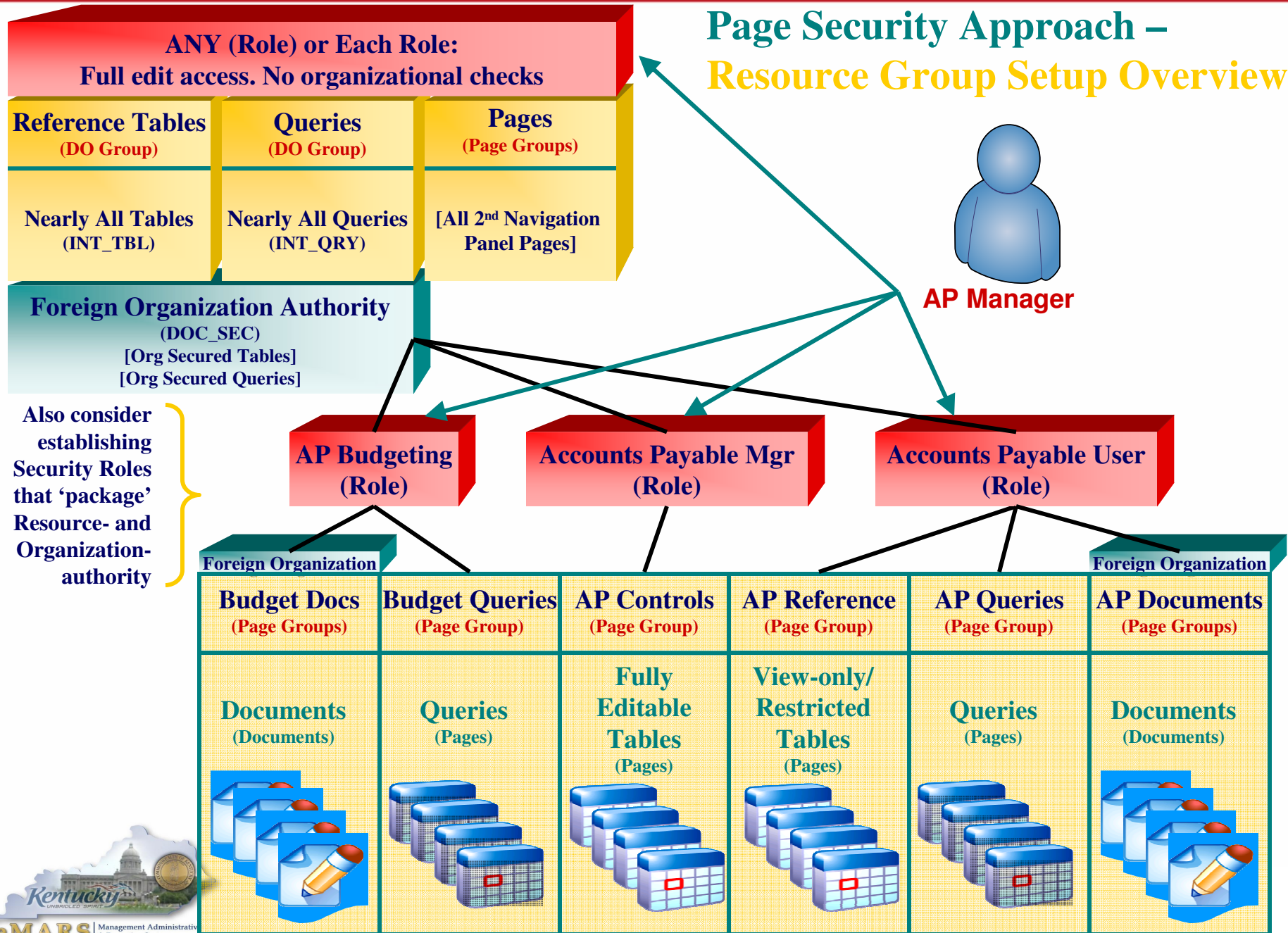
AP Manager

AP Budgeting (Role)

Accounts Payable Mgr (Role)

Accounts Payable User (Role)

Foreign Organization

Foreign Organization

Budget Docs (Page Groups)	Budget Queries (Page Group)	AP Controls (Page Group)	AP Reference (Page Group)	AP Queries (Page Group)	AP Documents (Page Groups)
Documents (Documents)	Queries (Pages)	Fully Editable Tables (Pages)	View-only/ Restricted Tables (Pages)	Queries (Pages)	Documents (Documents)

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Application Resources

SCRSRC

Resource ID	Resource Type	Resource Group ID	Logging	Organization Security T...
✓ BG_DOC_LN	Reference Table	BG	false	None
DOC_COA	Reference Table	COMN_DOC	false	None
DOC_HDR	Reference Table	DOC_HDR	false	Both
R_DEPT	Reference Table	COA_CENT	false	None
R_FUND	Reference Table	COA_CENT	false	None
R_GEN_SOPT	Reference Table	APL_CTRL	false	None
R_SC_FLD_ACCS	Reference Table	SECURITY	false	None
R_SC_RSRC_ACCS	Reference Table	SECURITY	false	None
R_SC_USER_INFO	Reference Table	SEC_USER	false	None

First Prev Next Last

Save Undo Delete Insert Copy Paste   Search

*Resource ID : BG_DOC_LN

*Short Description : BG_DOC_LN

Description :

*Resource Type : Reference Table

*Resource Group ID : BG
Budget Documents and Rel...

*Organization Security Type : None

All
Both Identifying→All
Indirect
Identifying
None

Secured Fields Action Log Resource Group

Logging : ☐

Row Security : ☐

Secured Fields : 0

Add new docs/pages here!

Configuration notes

▸ Resource Type: should be static

▸ Organizational Security Type: determines which organizational elements are checked for authorization against a user's home & foreign organizational authority. (Tip: minimize its use.)

▸ Logging: logs all security actions

▸ Row Security: hides unauthorized table/query records

Considerations

▸ Row Security may decrease performance – use sparingly for sensitive information vs. for searching convenience.

▸ Most settings are pre-configured so keep backups when modifying resources

▸ Smart securing of table resources can significantly reduce document-level security (e.g., tables in red).

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Security Roles

Setup reference tables:

▸ Security Role (SCROLE)

▸ Valid Security Role (SCVROL)

Highlights:

▸ Security Roles are defined for users with similar functional tasks and security requirements

▸ Security Roles are mapped to Resource Groups to establish the majority of security control

▸ Security Roles may be department-specific

Resources & Resource Grouping

▸ Resource Groups & Security Approaches

▸ Page Security

▸ Navigational Security

▸ Table Security

▸ Resources & Resource Group Setup

Security Roles

Authorization / Access Control

▸ Foreign Organizations

▸ Access Control: Resource access, Actions, Approval Levels

▸ Secured Fields

▸ Table Row Filtering

User Setup

▸ Authentication

▸ User Setup/Maintenance

▸ User Home Organization

▸ Security document vs. table updates

▸ Security Action Logging

1 Resource Groups

4 Access Control

3 Roles

2 Application Resources

5 Users

eMARS | Management Administrative & Reporting System
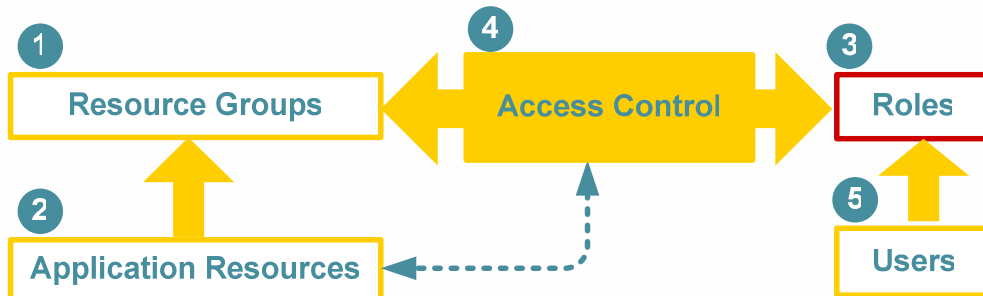
SCROLE

Security Role

Security Role ID	Description
✓ ADMN	Administrator Security Role (superuser)
AP_ADMIN	Accounts Payable Administrator
AP_USER	Accounts Payable User

First Prev Next Last

Save Undo Delete Insert Copy Paste   Search

*Security Role ID : ADMN

*Description : Administrator Security Ro

User Grants Foreign Organizations Access Control

SCVROL

Valid Security Role

Security Role ID	Department
✓ AP_ADMIN	150

First Prev Next Last

Save Undo Delete Insert Copy Paste   Search

*Security Role ID : AP_ADMIN

*Department : 150

Configuration Points
- Add, modify, and/or delete Security Roles
- Associate Role with specific departments, if needed
  - To restrict to which users they may be assigned
  - Typically only needed when security administration is decentralized (via UDOC)

Notes
- Similar to Profiles in ADV2.x
- Security Roles tend to be much more discrete in ADV3
  - For example, GAX document for Department X. (LA County examples: GPAUDE, GPAUAP1, GPAUAP2, GPAUINQ – these use the format [doc group][org auth.][purpose])
  - Alternatively, some roles may include many documents/pages and broad organizational authority. Perhaps a mix for central/decentral.
- Access, authorization, and action-rights are set by Role versus by individual user
- Security Roles are mapped to one or more (usually multiple) Resource Groups to establish the majority of security controls. (Note: document data entry roles need to be mapped to target document [edit actions] and backward referenced documents [save action])
- ADMN superuser Role bypasses security checks

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Access Control / Authorization

Setup reference tables:

- Foreign Organization (SCFORG)
- Access Control (SCRACS)
- Secured Fields (SCFLD) / Field Access (SCFACS)
- *Secured Field assoc. & Row Filtering* (SCRSRC)

Highlights:

- These tables are the nitty-gritty of security setup
- Foreign organization authorizations, resource access, action-rights, and approval levels are all are defined for Resource Group/Security Role combinations
- Field security access rules are set by Security Role but activated at the Resource Group/ Security Role level

Resources & Resource Grouping

- Resource Groups & Security Approaches
  - Page Security
  - Navigational Security
  - Table Security
- Resources & Resource Group Setup

Security Roles

Authorization / Access Control

- Foreign Organizations
- Access Control: Resource access, Actions, Approval Levels
- Secured Fields
- Table Row Filtering

User Setup

- Authentication
- User Setup/Maintenance
- User Home Organization
- Security document vs. table updates
- Security Action Logging

1 Resource Groups **4** Access Control **3** Roles

2 Application Resources

5 Users

eMARS | Management Administrative & Reporting System
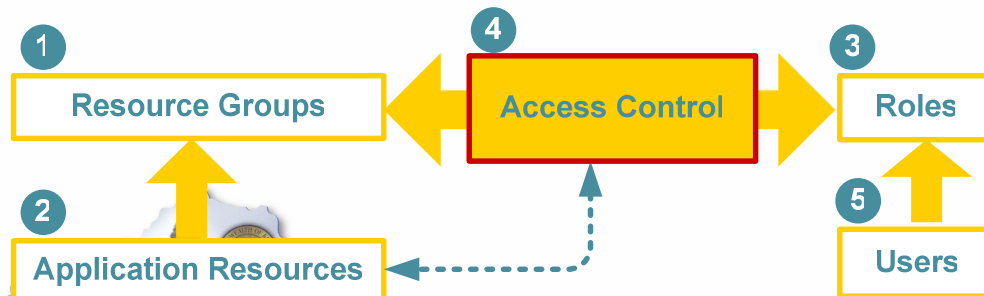
1. A likely setup order is shown here, though each of the steps may be accomplished in any order.

2. The Secured Fields and Row Filtering capabilities are only relevant based on general Access Control and Foreign Organization setup.

3. Secured Field setup involves multiple tables

Setup Sequence

Define Resource Access Control

Define Foreign Organizations

Define Secured Fields and Access Rules

Activate Row Filtering

Activate New/Modified Security Settings

4 Access Control

Foreign Organization definition

Allowed Actions & Functions

Approval Levels

Field Level Security

Activate Row Filtering (tables)

Governing Logir-access Rules

1 Resource Groups

2 Application Resources

3 Roles

5 Users

Access Control

SCRACS

Resource Group ID	Security Role ID	Organizational Security Indicator
AP_ABS_D	AP_ADMIN	None
✓ AP_CTRL	AP_ADMIN	None
AP_CTRLD	AP_ADMIN	None
AP_INQ	AP_ADMIN	None
AP_INQD	AP_ADMIN	None

First Prev Next Last

Save Undo Delete Insert Copy Paste   Search

*Resource Group ID : AP_CTRL

*Security Role ID : AP_ADMIN

*Organizational Security Indicator : None

Field Security Indicator : ☐

Foreign
Home
None
Exclude Foreign

▶ **Approvals**

▶ **Actions**

▶ **Application Actions**

Configuration Points
- Map Security Role & Resource Group
- Set Organizational Security Indicator:
  - Home (defined on user record)
  - Foreign (home & FORG)
  - Exclude Foreign (all but FORG)
  - None (no organizational checks)
    - Tip: Use 'None' where possible
- Set Field Security Indicator
- Configure just about everything else for the given Sec Role/RG mapping

Notes
- Access Control is the most substantive security control table – the central table
- Access to view and perform specific actions on Resource Groups is defined on SCRACS
- Several other security control tables are linked or related to SCRACS
- Use the "ANY" Security Role for resource groups to which all users may have access

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Foreign Organization

SCFORG

	Security Role ID	Resource Group ID	Branch	Cabinet	Department	Division	Group	Section	District	Bureau	Unit
	AP_ADMIN	AP_CTRL			300						

First Prev Next Last

Save Undo Delete Insert Copy Paste   Search

* Security Role ID : AP_ADMIN
* Resource Group ID : AP_CTRL

Branch :
Cabinet :
Department : 300

Division :
Group :
Section :

District :
Bureau :
Unit :

Role Information   Resource Group Information   Access Control

Department = 150
Home

Department = 300
Department = 700
Foreign
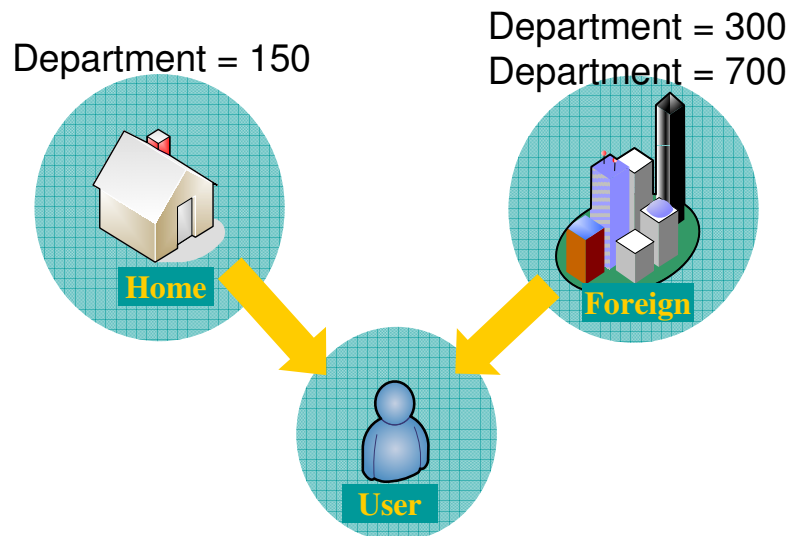
User

Authorized departments = 150 + 300 + 700

Configuration Points
▸ Define authorized Organizations for Security Role / Resource Group combinations

Notes
▸ Foreign organizations are those that are different from a user's home organization (at any level)
▸ SCFORG controls the **use of** organizational elements and in some cases **data views**
▸ This can be a big table. Needs careful management.
▸ 'Blank' represents a wildcard for the elements (don't use "????")

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Home Organization

`*Organizational Security Indicator :` Home
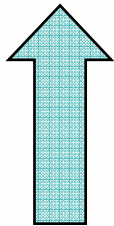
USER RECORD

Lastname	Dept
Giovanni	200

Home Organization

Organizational Security Indicator : Home

USER RECORD

Lastname	Dept
Giovanni	200

ADVANTAGE

Lastname	Dept	Information
Olsson	100	Xxxxxxxxxxxxxx
Smith	200	Xxxxxxxxxxxxxx
Giovanni	200	Xxxxxxxxxxxxxx
Stewart	300	Xxxxxxxxxxxxxx
Petersen	300	Xxxxxxxxxxxxxx
Quintus	400	Xxxxxxxxxxxxxx
Barroso	500	Xxxxxxxxxxxxxx
Hunt	600	Xxxxxxxxxxxxxx

Authorized Foreign Organizations

Organizational Security Indicator : Foreign

USER RECORD

Lastname	Dept
Giovanni	200

Foreign Organizations

Security Role	Dep
FIN_MGR	100

ADVANTAGE

Lastname	Dept	Information
Olsson	100	Xxxxxxxxxxxxxxx
Smith	200	Xxxxxxxxxxxxxxx
Giovanni	200	Xxxxxxxxxxxxxxx
Stewart	300	Xxxxxxxxxxxxxxx
Petersen	300	Xxxxxxxxxxxxxxx
Quintus	400	Xxxxxxxxxxxxxxx
Barroso	500	Xxxxxxxxxxxxxxx
Hunt	600	Xxxxxxxxxxxxxxx

Management Administrative & Reporting System

Authorized Foreign Organizations

Organizational Security Indicator : Foreign

USER RECORD

Lastname	Dept
Giovanni	200

Foreign Organizations

Security Role	Dep
FIN_MGR	100
FIN_MGR	300
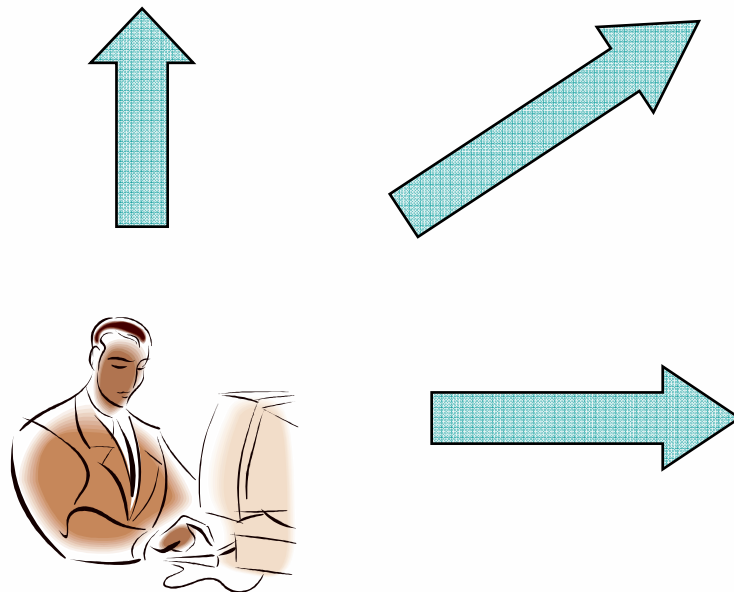
ADVANTAGE

Lastname	Dept	Information
Olsson	100	Xxxxxxxxxxxxxx
Smith	200	Xxxxxxxxxxxxxx
Giovanni	200	Xxxxxxxxxxxxxx
Stewart	300	Xxxxxxxxxxxxxx
Petersen	300	Xxxxxxxxxxxxxx
Quintus	400	Xxxxxxxxxxxxxx
Barroso	500	Xxxxxxxxxxxxxx
Hunt	600	Xxxxxxxxxxxxxx
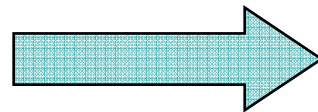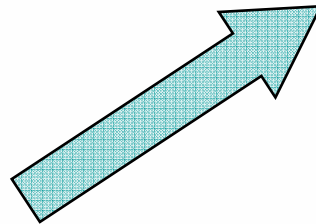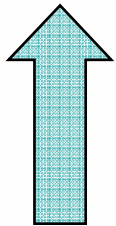
Excluded Foreign Organizations

Organizational Security Indicator : Exclude Foreign

USER RECORD

Lastname	Dept
Giovanni	200

Foreign Organizations

Security Role	Dep
FIN_MGR	400
FIN_MGR	600

ADVANTAGE

Lastname	Dept	Information
Olsson	100	Xxxxxxxxxxxxxx
Smith	200	Xxxxxxxxxxxxxx
Giovanni	200	Xxxxxxxxxxxxxx
Stewart	300	Xxxxxxxxxxxxxx
Petersen	300	Xxxxxxxxxxxxxx
Quintus	400	Xxxxxxxxxxxxxx
Barroso	500	Xxxxxxxxxxxxxx
Hunt	600	Xxxxxxxxxxxxxx

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Access Control

Resource Group ID	Security Role ID	Organizational Security Indicator	Field Security Indicator
AP_ABS_D	AP_ADMIN	None	false
✓ AP_CTRL	AP_ADMIN	None	false
AP_CTRLD	AP_ADMIN	None	false
AP_INQ	AP_ADMIN	None	false
AP_INQD	AP_ADMIN	None	false

First Prev Next Last

Save Undo Delete Insert Copy Paste   Search

*Resource Group ID : AP_CTRL

*Security Role ID : AP_ADMIN

*Organizational Security Indicator : None

Field Security Indicator : ☐

▶Approvals

SCRACS

▼Actions

Grant All Remove All

Schedule : ☐	Edit : ☐	Submit : ☐	Reassign : ☐	Page Open : ☐
Deactivate : ☐	Insert Line : ☑	Import : ☐	Send Message : ☐	Indirect Authority : ☐
Activate : ☐	Delete Line : ☑	Export : ☐	Reject All : ☐	Delete Alt. View Att. : ☐
Archive : ☐	Attach : ☐	Print : ☐	Bypass Approvals : ☐	Add Comments : ☐
Archive History : ☐	New : ☐	Scan : ☑	Mark For Processing : ☐	
Unarchive : ☐	Copy : ☐	Approve : ☐	Hold Document : ☐	
Open : ☐	Discard : ☐	Reject : ☐	Apply Overrides : ☐	
Save : ☑	Validate : ☐	Unapprove : ☐	Remove Overrides : ☐	

▶Application Actions

Top

Security Role Information   Resource Group Information   Foreign Organizations   Security Role User Grants

Configuration Points

▶ Set the allowed Actions

Notes

▶ Reference Table Actions

▶ Query Actions

▶ Document Actions

▶ Approvals/Workflow Actions

▶ Page Actions

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Access Control

Reference Table Actions	→	**NO ACCESS**
Query Actions		
Document Actions		
Workflow Approval		
Page Actions		

▼ Actions

Grant All   Remove All

Schedule ☐	Edit ☐	Submit ☐	Reassign ☐	Page Open ☐
Deactivate ☐	Insert Line ☐	Import ☐	Send Message ☐	Indirect Authority ☐
Activate ☐	Delete Line ☐	Export ☐	Reject All ☐	Delete Alt. View Att. ☐
Archive ☐	Attach ☐	Print ☐	Bypass Approvals ☐	Add Comments : ☐
Archive History ☐	New ☐	Scan ☐	Mark For Processing ☐	
Unarchive ☐	Copy ☐	Approve ☐	Hold Document ☐	
Open ☐	Discard ☐	Reject ☐	Apply Overrides ☐	
Save ☐	Validate ☐	Unapprove ☐	Remove Overrides ☐	

eMARS | Management Administrative & Reporting System

Access Control

Reference Table Actions → **READ-ONLY**

▼ Actions

Grant All   Remove All

Schedule ☐	Edit ☐	Submit ☐	Reassign ☐	Page Open ☐
Deactivate ☐	Insert Line ☐	Import ☐	Send Message ☐	Indirect Authority ☑
Activate ☐	Delete Line ☐	Export ☐	Reject All ☐	Delete Alt. View Att. ☐
Archive ☐	Attach ☐	Print ☐	Bypass Approvals ☐	Add Comments : ☐
Archive History ☐	New ☐	Scan ☑	Mark For Processing ☐	
Unarchive ☐	Copy ☐	Approve ☐	Hold Document ☐	
Open ☐	Discard ☐	Reject ☐	Apply Overrides ☐	
Save ☐	Validate ☐	Unapprove ☐	Remove Overrides ☐	

Access Control

Reference Table Actions → **UPDATE**

Actions

Grant All   Remove All

Schedule ☐	Edit ☐	Submit ☐	Reassign ☐	Page Open ☐
Deactivate ☐	Insert Line ☑	Import ☐	Send Message ☐	Indirect Authority ☑
Activate ☐	Delete Line ☑	Export ☐	Reject All ☐	Delete Alt. View Att. ☑
Archive ☐	Attach ☐	Print ☐	Bypass Approvals ☐	Add Comments : ☐
Archive History ☐	New ☐	Scan ☑	Mark For Processing ☐	
Unarchive ☐	Copy ☐	Approve ☐	Hold Document ☐	
Open ☐	Discard ☐	Reject ☐	Apply Overrides ☐	
Save ☑	Validate ☐	Unapprove ☐	Remove Overrides ☐	

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Access Control

Query Actions → **READ-ONLY**

▼ Actions

Grant All   Remove All

Schedule ☐	Edit ☐	Submit ☐	Reassign ☐	Page Open ☐
Deactivate ☐	Insert Line ☐	Import ☐	Send Message ☐	Indirect Authority ☑
Activate ☐	Delete Line ☐	Export ☐	Reject All ☐	Delete Alt. View Att. ☐
Archive ☐	Attach ☐	Print ☐	Bypass Approvals ☐	Add Comments : ☐
Archive History ☐	New ☐	Scan ☑	Mark For Processing ☐	
Unarchive ☐	Copy ☐	Approve ☐	Hold Document ☐	
Open ☐	Discard ☐	Reject ☐	Apply Overrides ☐	
Save ☐	Validate ☐	Unapprove ☐	Remove Overrides ☐	

Access Control

Document Actions → **READ-ONLY**

▼ Actions

Grant All   Remove All

Schedule ☐	Edit ☐	Submit ☐	Reassign ☐	Page Open ☐
Deactivate ☐	Insert Line ☐	Import ☐	Send Message ☐	Indirect Authority ☐
Activate ☐	Delete Line ☐	Export ☐	Reject All ☐	Delete Alt. View Att. ☐
Archive ☐	Attach ☐	Print ☑	Bypass Approvals ☐	Add Comments : ☐
Archive History ☐	New ☐	Scan ☐	Mark For Processing ☐	
Unarchive ☐	Copy ☐	Approve ☐	Hold Document ☐	
Open ☑	Discard ☐	Reject ☐	Apply Overrides ☐	
Save ☐	Validate ☐	Unapprove ☐	Remove Overrides ☐	

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Access Control

| Document Actions | → | **UPDATE** |

▼ *Actions*

Grant All   Remove All

Schedule ☑	Edit ☑	Submit ☑	Reassign ☐	Page Open ☐
Deactivate ☑	Insert Line ☐	Import ☑	Send Message ☐	Indirect Authority ☐
Activate ☑	Delete Line ☐	Export ☑	Reject All ☐	Delete Alt. View Att. ☐
Archive ☑	Attach ☑	Print ☑	Bypass Approvals ☐	Add Comments : ☑
Archive History ☑	New ☑	Scan ☐	Mark For Processing ☑	
Unarchive ☑	Copy ☑	Approve ☐	Hold Document ☑	
Open ☑	Discard ☑	Reject ☐	Apply Overrides ☑	
Save ☑	Validate ☑	Unapprove ☐	Remove Overrides ☑	

Access Control

| Workflow Approval Actions | → | **UPDATE** |

▼ *Actions*

Grant All   Remove All

Schedule ☐	Edit ☐	Submit ☑	Reassign ☑	Page Open ☐
Deactivate ☐	Insert Line ☐	Import ☐	Send Message ☑	Indirect Authority ☐
Activate ☐	Delete Line ☐	Export ☐	Reject All ☑	Delete Alt. View Att. ☐
Archive ☐	Attach ☐	Print ☐	Bypass Approvals ☑	Add Comments : ☐
Archive History ☐	New ☐	Scan ☐	Mark For Processing ☐	
Unarchive ☐	Copy ☐	Approve ☑	Hold Document ☐	
Open ☑	Discard ☐	Reject ☑	Apply Overrides ☐	
Save ☑	Validate ☐	Unapprove ☑	Remove Overrides ☐	

Access Control

Page Actions → **READ-ONLY**

▼ Actions

Grant All   Remove All

Schedule ☐	Edit ☐	Submit ☐	Reassign ☐	Page Open ☑
Deactivate ☐	Insert Line ☐	Import ☐	Send Message ☐	Indirect Authority ☐
Activate ☐	Delete Line ☐	Export ☐	Reject All ☐	Delete Alt. View Att. ☐
Archive ☐	Attach ☐	Print ☐	Bypass Approvals ☐	Add Comments : ☐
Archive History ☐	New ☐	Scan ☐	Mark For Processing ☐	
Unarchive ☐	Copy ☐	Approve ☐	Hold Document ☐	
Open ☐	Discard ☐	Reject ☐	Apply Overrides ☐	
Save ☐	Validate ☐	Unapprove ☐	Remove Overrides ☐	

eMARS Management Administrative & Reporting System

Access Control

Page Actions → **UPDATE**

▼ Actions

Grant All   Remove All

Schedule ☐	Edit ☐	Submit ☐	Reassign ☐	Page Open ☑
Deactivate ☐	Insert Line ☑	Import ☐	Send Message ☐	Indirect Authority ☐
Activate ☐	Delete Line ☑	Export ☐	Reject All ☐	Delete Alt. View Att. ☐
Archive ☐	Attach ☐	Print ☐	Bypass Approvals ☐	Add Comments : ☐
Archive History ☐	New ☐	Scan ☐	Mark For Processing ☐	
Unarchive ☐	Copy ☐	Approve ☐	Hold Document ☐	
Open ☐	Discard ☐	Reject ☐	Apply Overrides ☐	
Save ☑	Validate ☐	Unapprove ☐	Remove Overrides ☐	

Access Control

SCRACS

Resource Group ID	Security Role ID	Organizational Security Indicator	Field Security In...
DOC	AP_ADMIN	None	false
DOC_HDR	AP_ADMIN	None	false
GAE	AP_ADMIN	None	false
GAP	AP_ADMIN	None	false
✓ GAX	AP_ADMIN	None	false

First Prev Next Last

Save Undo Delete Insert Copy Paste

*Resource Group ID : GAX

*Security Role ID : AP_ADMIN

▶Approvals ⟶

▶Actions

▼Approvals
Grant All Remove All

Approval Level 1 : ☑	Approval Level 6 : ☑
Approval Level 2 : ☑	Approval Level 7 : ☑
Approval Level 3 : ☑	Approval Level 8 : ☑
Approval Level 4 : ☑	Approval Level 9 : ☑
Approval Level 5 : ☑	Approval Level 10 : ☐

▼Application Actions
Grant All Remove All

Funding Distribution : ☑	Load Budget Constraints : ☑	Budget Rollup : ☑
Smart Budget Rollup : ☑	Auto Apply : ☑	Load Terms and Conditions : ☑
Load Accounting Template : ☑	Distribute Billing Location : ☑	Distribute Shipping Location : ☑
Disbursement Reclassification : ☑	Receivable : ☑	Cash Receipt : ☑
Write-Off : ☑	Referral to Collection Agency : ☑	Create ITA from ITI : ☑
Create GAX from GAP : ☑	Create GAE from GAP : ☑	Create GAX from GAE : ☑
Manual Disbursement : ☑	Load Existing Links : ☑	Load Vendor List : ☑
Load Evaluation Criteria : ☑	Load T & C Commodity : ☑	Load Vendor Rotation : ☑
Fixed Asset Header Auto Apply : ☑	Fixed Asset Component Auto Apply : ☑	Load Responses : ☑
Create Evaluator Document : ☑	Create MA Document : ☑	Create PO Document : ☑
Create RE Document : ☑	Apply Default Values to Commodity Lines : ☑	Load Renewal Periods : ☑

Configuration Points
▸ Set the Approval Levels that apply
▸ Set the Application Actions that may be used

Notes
▸ Approvals setup is defined on other reference tables, but activated here. *(Note: you may use Workflow routing to as security for approvals – less security setup. Restrict 'Reassign' action.)*
▸ Application Actions are the specialized actions found on documents
▸ Application Actions come from the Document Custom Action Definition table

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Secured Fields are used to:

▸ Restrict the entered values that may be committed to the database for a specified field on a specified table or document. (Fields are not grayed out or hidden.)

▸ Component-level security must be activated for secured fields on non-header document components

▸ Hide a table or query record from the user's view where the record contains a field value that is not authorized. (Individual fields cannot be hidden using field-security.)

Secured Field Setup

1	**Define Secured Fields**	**SCFLD**	**Secured Fields**
2	**Define Field Access Rule(s)**	**SCFACS**	**Field Access**
3	**Associate Field with Application Resource(s)**	**SCRCFL**	**Application Resource Fields**
4	**Activate Secured Fields for Resource Group / User Role**	**SCRACS**	**Access Control**

Application Resources

SCRSRC

Resource ID	Resource Type	Resource Group ID	Logging	Organization Security Type
R_EMAIL_LTR_GEN	Reference Table	VSS	false	None
R_ENTY	Reference Table	INCT	false	None
R_EVAL_CRIT	Reference Table	PC_CTRL	false	None
R_EVAL_CRIT_JN	Reference Table	PC_CTRL	false	None
R_EVAL_CRIT_TMPL	Reference Table	PC_CTRL	false	None
R_EVNT_CAT	Reference Table	APL_CTRL	false	None
R_EVNT_RQMTS	Reference Table	APL_CTRL	false	None
✓ R_EVNT_TYP	Reference Table	APL_CTRL	false	None
R_EVNT_TYP_DFLT	Reference Table	APL_CTRL	false	None
R_EV_PRICE_DT	Reference Table	PC_INQD	false	None

First Prev Next Last

Save Undo Delete Insert Copy Paste   Search

*Resource ID : R_EVNT_TYP

*Short Description : R_EVNT_TYP

Description :

*Resource Type : Reference Table

*Resource Group ID : APL_CTRL
Application Controls

*Organization Security Type : None

Secured Fields Action Log Resource Group

Logging :

Row Security : ☑

Secured Fields : 2

Configuration Points

▸ Activate Row Security where applicable for tables or queries. Not applicable within documents.

Notes

▸ The Row Security setting filters from view any table/query row where **organizational** or **secured field values** exist for which the user does not have security authority.

▸ Row filtering is processing-intensive and may impact performance if overused. Hardware architecture (i.e., memory & CPU power) determines performance level

▸ It is recommended that its use be limited to filter truly sensitive information (vs. more broadly for searching convenience).

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GMRT

Generate MRT - Security

Generate MRT (Production) Generate MRT (Debug)

MRT File Location :	/apps/34/AMSADV34/RTFiles/aa34oa1
MRT File Name :	ADVMRT.dat
Generate MRT File Location :	/apps/34/AMSADV34/RTFiles/aa34oa1
Generate MRT File Name :	ADVMRT.dat

Configuration Points

▸ Click "Generate MRT (Production)"

▸ Bounce the VLS (restart the application) for the application to which the security changes apply

Notes

▸ For better performance, the following security setup is stored in Memory-Resident Tables

  ▸ Application Resources

  ▸ Access Control

  ▸ Foreign Organization

  ▸ Field Security

▸ User setup is <u>not</u> part of the MRT file since it is more dynamic in nature

▸ The MRT generation and VLS bounce (of the target application) must be performed for any changes on the MRT tables to become effective.

▸ There are configuration points for MRT setup and usage, but are beyond the scope of this course (i.e., technical)

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eMARS | Management Administrative & Reporting System

User Setup

Setup Document:
▸ User Maintenance Document (UDOC)

Key setup reference tables:
▸ Create User (SCNDIR)
▸ User Information (SCUSER)
▸ LDAP New User Configuration (SCULDAP)
▸ User Security Role Grants (SCUROL/SCROLU)
▸ Copy Existing User (SCCLON)
▸ User Login Access (SCULGN)
▸ Security Action Log (SCACTS)
▸ System Configuration (SCCNFG)

Highlights:
▸ Easily create and maintain like-users
▸ Home organization defined at the user level
▸ Single/multiple Security Roles may be assigned
▸ May track security actions taken by user

Resources & Resource Grouping

▸ Resource Groups & Security Approaches
  ▸ Page Security
  ▸ Navigational Security
  ▸ Table Security
▸ Resources & Resource Group Setup

Security Roles

Authorization / Access Control

▸ Foreign Organizations
▸ Access Control: Resource access, Actions, Approval Levels
▸ Secured Fields
▸ Table Row Filtering

User Setup

▸ Authentication
▸ User Setup/Maintenance
▸ User Home Organization
▸ Security document vs. table updates
▸ Security Action Logging

1 Resource Groups
2 Application Resources
4 Access Control
3 Roles
5 Users
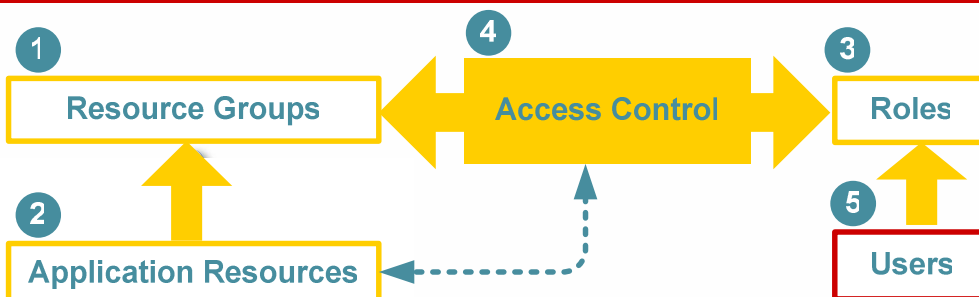
Comparison: UDOC vs. direct Table Updates

UDOC

Table Access

UDOC		Table Access
Information submitted via documents (may be slower)	✔	Information save immediately to database (may be quicker)
User setup can be done on one page	✔	User setup must be made by using multiple pages
More information to digest on one page, yet all user setup is in one place	✔	Easier to digest detailed information by using multiple pages, but remembering to cover the all bases may be harder
Workflow assignments possible within security setup	✔	Workflow assignments made elsewhere (Workflow setup)
Suited for DE-CENTRALIZED organizations	✔	Suited for CENTRALIZED organizations
User ID & password email notices enabled	✔	No email
Can force users to reset password at logon	✔	No password reset enforcement
Password can be system generated	✔	No password generation
Can be "batched" for multiple record generation	✔	More difficult to batch records
Data validation	✔	No data validation
Provides a detailed audit trail of changes	✔	No audit trail
Can require Approvals (as default or special cond.)	✔	No Approvals

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UDOC / SCNDIR

Configuration Points - Header

▸ Add User-Application Information

Notes

▸ Home Organization values are used for security authorization checking. A blank field means no security checks are performed at that organization level.

▸ Some application components will expect to find a valid department code.

▸ The password settings are often used in combination.

▸ *HMPGADMN for hostile takeover of home page* ☺

Department = 150

Department = 300
Department = 700

Home

Foreign

User

Authorized departments = 150 + 300 + 700

eMARS Management Administrative & Reporting System

Document View
- ✓ Header
- ✓ Security Roles
- Workflow Roles
- Workgroups

Document History
Document Reference
Future Triggering

UDOC
/ SCUROL or SCROLU

UDOC - 150- RSL INITIAL SETUP- 1- New- Draft

Action Menu

User ID : selowry   Last Name : Lowry   First Name : Sean

			Security Role ID	Description	Precedence
✂	📋	✓	AP_USER	Accounts Payable User	1
✂	📋		AP_ADMIN	Accounts Payable Administrator	2

Insert New Line Insert Copied Line   First Prev Go To Next Last

*Action : ● Add
           ○ Update
           ○ Delete

*Security Role ID : AP_USER ▶

Description : Accounts Payable User

*Precedence : 1

Save   Undo   Print   Validate

Menu

Configuration Points

▸ Add Security Roles for functional tasks and security requirements

▸ Set role Precedence

Notes

▸ A Security Role must be assigned for any access to application resources

▸ Multiple roles may be assigned.

▸ Users have access/ authority granted by any of their roles

UDOC 150 RSL INITIAL SETUP 1
Document View
✓ Header
Security Roles
✓ Workflow Roles
Workgroups
Document History
Document Reference
Future Triggering

UDOC
/ IWF11 or
IWF01

UDOC - 150- RSL INITIAL SETUP- 1- New- Draft

Action Menu

User ID : selowry   Last Name : Lowry   First Name : Sean

			Role ID	Name	Manager
✂	📄	✓	ADMN	Administrator	true
✂	📄		Accounts Payable	Accounts Payable	false
✂	📄		Budgeting	Budgeting	false

Insert New Line Insert Copied Line   First Prev Go To Next Last

*Action :   ● Add
            ○ Update
            ○ Delete

*Role ID : | ADMN | ▷
Name : Administrator
Manager : ☑

Save   Undo   Print   Va

Menu

Configuration Points
▸ Add Workflow Roles for document approval routing
▸ Set Manager flag

Notes
▸ Workflow configuration and document approvals are covered in a separate course.

SCCPRL

Copy User Roles

Step 1: Select a user to copy all roles from...

Search   First Prev Next Last

User ID : apadmins

Role ID	Description
AP_ADMIN	Accounts Payable Administrator
AP_USER	Accounts Payable User

First Prev Next Last

Next >

Copy User Roles

Step 2: Select a user to copy selected roles into.

Search   First Prev Next Last

User ID : joeaby

Role ID	Description
ADMN	Administrator Security Role (superuser)
BATCHADM	Batch Administrator

First Prev Next Last

< Back   Next >

Copy User Roles

Step 3: Confirm Copy User Roles

Copy Roles From User : apadmins

Copy Roles To User : joeaby

< Back   Copy User Roles

Configuration Points

▸ Select a representative user

▸ Select an <u>existing</u> target user

▸ Copy Security Roles to target user

Notes

▸ Copying Security Roles is similar to cloning users.

▸ Both representative and target users must already exists.

▸ Very useful utility when a user changes functional roles or when functional roles themselves change and need to be copied to an existing group of users.

Lessons Learned

- Start early

- Clearly communicate new security model

- Take a fresh look at your organization

- Consider all wanted features before implementation

- Clearly identify access based on organization
  - Home Department, Unit etc.
  - Foreign Department, Unit etc.

- Involve your key users in analysis and prototyping phase

Implementation Tools – Coming Soon

- Security Data
  - DayZero
  - DayZero+ PLUS

- Security Configuration Templates

- Analysis Tools
  - Analysis spreadsheet
  - XML generator

- DB Scripts
  - Identification of potentially corrupt data
  - Unique ID synchronization
  - Migration of security configurations

Templates

DayZero

DayZero+ PLUS

Analysis Tools

SQL

DB Scripts

Tools: Analysis Tools

- ANALYSIS SPREADSHEET
  - Contains all resource groups and resources needed for the release
  - Allows easy managements of complex configurations
  - Allows clients to focus on identifying security roles
  - Majority of security configuration can be configured in the spreadsheet before applying configuration to the database
  - Allows multiple "dry runs" of configuration to be analyzed before using deciding on a final configuration

- XML GENERATORS
  - Translates analysis effort into physical data
  - Produces XML data
  - XML data is imported using the System Maintenance Utility
  - Allows mass-inserts into database with proper validation
  - Ensures data integrity of security data

Analysis Tools

Tools: Analysis Tools – Spreadsheet Template

Access Definition
- Update
- Readonly
- No access

Data Identification
- HRM vs FIN
- Resource Type
- Resource Groups
- Page Code
- Page Descriptions

	A	B	C	D	E	F	G	H
1					Rsrc Type	Page Type	Security Role Access	
2	Internal Objects - Tables - Update:				Table		U	Update
3	Internal Objects - Queries - Access:				Query		R	Readonly
4	Documents - Update:				Document	Document	U	Update
5	Documents - Readonly:				Document	Document	R	Readonly
6	Documents - No access:				Document	Document	[no access]	Empty entry signifies no access
7	Page Objects (AF, Tables, Queries) - Access				Page	AF, Query, Table	U	Update
8	Page Objects (AF, Tables, Queries) - No acces				Page	AF, Query, Table	R	Readonly
9	Page Objects (AF, Tables, Queries) - No acces				Page	AF, Query, Table	[no access]	Empty entry signifies no access
10	Other (e.g. require more analysis)				<ANY>	<ANY>	?	Undecided
11								
13	HRM	FIN	Rsrc Type	Page Type	Rsrc Group	Page Code	Page Description	
14		x	Page	Tables	1099D	1099D	1099 Date and Document Parameters Table	
15		x	Page	Tables	1099I	1099I	1099 Reporting Information	
16		x	Page	Tables	1099P	1099P	1099 Processing Options and Control	
17		x	Page	Tables	1099R	1099R	1099 Reported Income	
20	x	x	Page	Tables	AAPDC	AAPDC	Allowable Accounting Periods for Document Code	
22		x	Page	Tables	ABAL	ABAL	Bank Account Balance	
23		x	Page	Tables	ABCP	ABCP	ABC Classification Parameter	
24		x	Document	Document	ABDL	ABDL	Accounting Based Document Lapse	
25	x	x	Page	Tables	ACAT	ACAT	Activity Category	
26	x	x	Page	Tables	ACLS	ACLS	Activity Class	
28	x	x	Page	Tables	ACTPL	ACTPL	Accounting Template	
29	x	x	Page	Tables	ACTV	ACTV	Activity	
30		x	Document	Document	AD	AD	Automated Disbursement	
33		x	Page	Tables	ADJC	ADJC	Adjustment Code	

Tools: Analysis Tools – Spreadsheet Template

Add Security Roles

▸ Plug n' play format

▸ Easy to compare

▸ Role consolidation

Enter your 8-char role names here and specify access

Page Description	ALL_READ	ALL_UPD	TESTROLE	< rolename >
1099 Date and Document Parameters Table	R	U	U	
1099 Reporting Information	R	U	U	
1099 Processing Options and Control	R	U		
1099 Reported Income	R	U	R	
Allowable Accounting Periods for Document Code	R	U	R	
Bank Account Balance	R	U		
ABC Classification Parameter	R	U	U	
Accounting Based Document Lapse	R	U	R	
Activity Category	R	U		
Activity Class	R	U	?	
Accounting Template	R	U	?	
Activity	R	U		
Automated Disbursement	R	U		
Adjustment Code	R	U		
Adjustment Reason	R	U		
Auto Numbering	R	U		
Allowable Event Types for Document Code	R	U		
Allowable Event Types for Document Type	R	U		
Activity Group	R	U		
Cost Allocation Control Setup	R	U		
Alerts	R	U		
Alternate Organization Structure	R	U		
Amendment History	R	U		
Appropriation Category	R	U		
Appropriation Class	R	U		
Accounting Period	R	U		

Define Access

▸ Update

▸ Readonly

▸ No access

▸ ? for unknown

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Tools: Database Scripts

- Provides tools to analyze potentially corrupt data
  - If unexpected behavior is encountered, scripts can be run against database to eliminate any data inconsistencies

- Eliminates Unique ID corruption
  - When moving partial data between environments there is always a potential for unique IDs to be corrupted
  - Database scripts can be used to ensure that unique IDs are always synchronized
  - Used for nightly batch processes and configuration trouble-shooting

- Migration of security configuration
  - Allows system administrators to migrate a new setting to other environments
  - Useful during prototyping phase when using a test environment to identify new configurations and distribute those settings to other environments
  - Configuration examples are
    - Security Roles
    - Access Control Records
    - Workspaces

SQL

DB Scripts
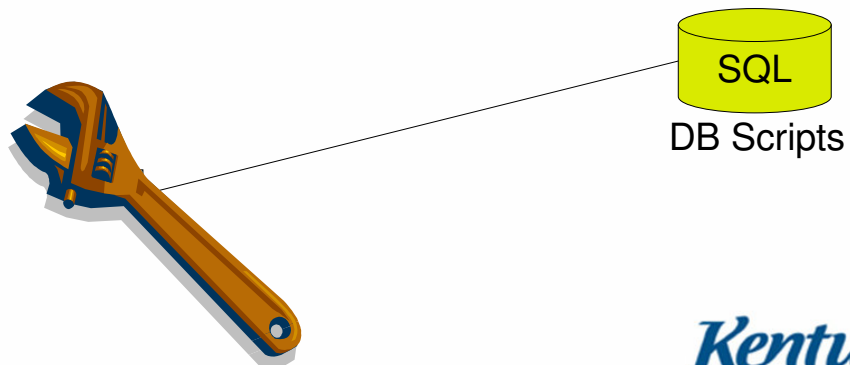
Add the new document as an Application Resource

- Go to SCRGRP and create a new Resource Group for your new document

- Go SCRSRC and add the new document as a resource and assign it to the new Resource Group.

- Time permitting:

  - Set up a new Security Role

  - Assign the document and related resources to the security role and grant the appropriate security actions.

Course flow:

Part 2

Creating A New Document Code

✔ Add to Document Control Table

✔ Add to Application Page Registration

✔ (If Needed) Create New HTML

✔ New Event Type Created?

✔ Automatic Document Numbering

✔ Application Resources

Workflow Needed

✔ If Doc Type RQ, PO, SO, EV, RC, SR

✔ Allowable Accounting Periods for Document Code

✔ Document Allowable References

Yes

✔ Allowable Event Types for Document Type

✔ Add Needed Entries to Default Event Types

Yes

✔ Approval Fields

Procurement Document Control

Tolerances

✔ Allowable Event Types for Document Code

✔ AP, MD, or DC Event Type Crosswalk

A/R

✔ Approval Conditions

✔ Procurement Type

✔ Document Code Tolerances

BFY Profiles & Stage Document ✔ Events

A/P

✔ Approval Setup

✔ Required Budget

✔ If A/R or A/P document

Yes

✔ Budget Posting Codes

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- Approvals and Workflow are integrated/inseparable
- The Approval Rule applied to a document is determined by Document Code and closest matching organizational values
- Up to 15 Approval Levels may be defined per Approval Rule.
- Automatic routing of a document between Approval Levels. Documents may be routed to multiple approvers in sequence or in parallel.
- A single user or a group of users may be assigned as an Approver of an Approval Level. Alternate Approvers may also be defined.
- Multiple Approval Conditions may be linked with multiple 'OR' or 'AND' statements within each Approval Level. Approval Conditions are based on document field values

- Automated email notifications may be sent to approvers in addition to a document appearing in their Worklist.
- There are several application pages to manage & track pending documents.
- Pending documents may optionally update Budgets, Cash Balance, and Fund Balance
- Security provides the highest level of control over Approval Processing
- Some key workflow controls are applied at the document code level (e.g., on/off switch)
- A delivered Approval Administration 'Workspace' is provided for easy navigation through Approval Setup

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- **Approvals Required**

- **Some may look but not touch**

Purchase Order

- **Data entry and document submission are separated**

- **Document must be acknowledged** (but not impeded/rejected)

LOOK

Approvals

Separation of Duties

Posting
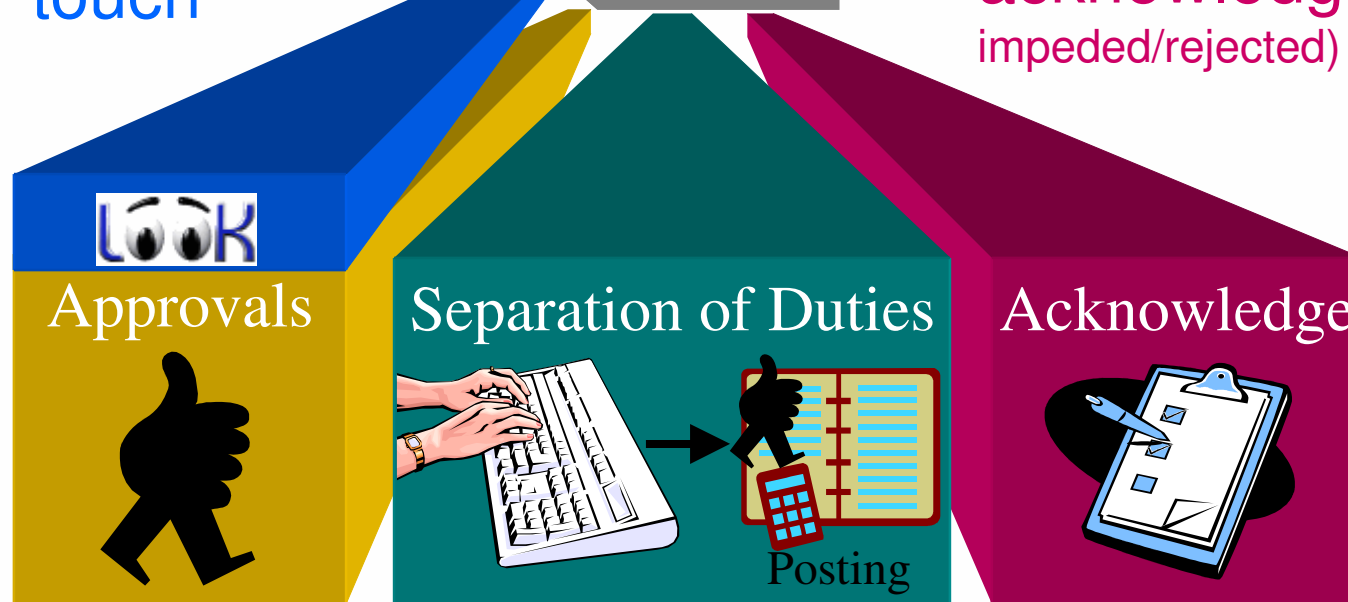
Acknowledge

Workflow Scenario using 4 Approval Levels:

- 1st level = submit authority (separation of duties)
- 2nd & 3rd levels = approvals (parallel)
  - Watcher at 3rd and 4th levels
- 4nd level = acknowledgement

PO

Optional Updates:
Budget
Cash Balance
Fund Balance

LOOK
1
2
3
4

PO
Final
(Complete Posting)
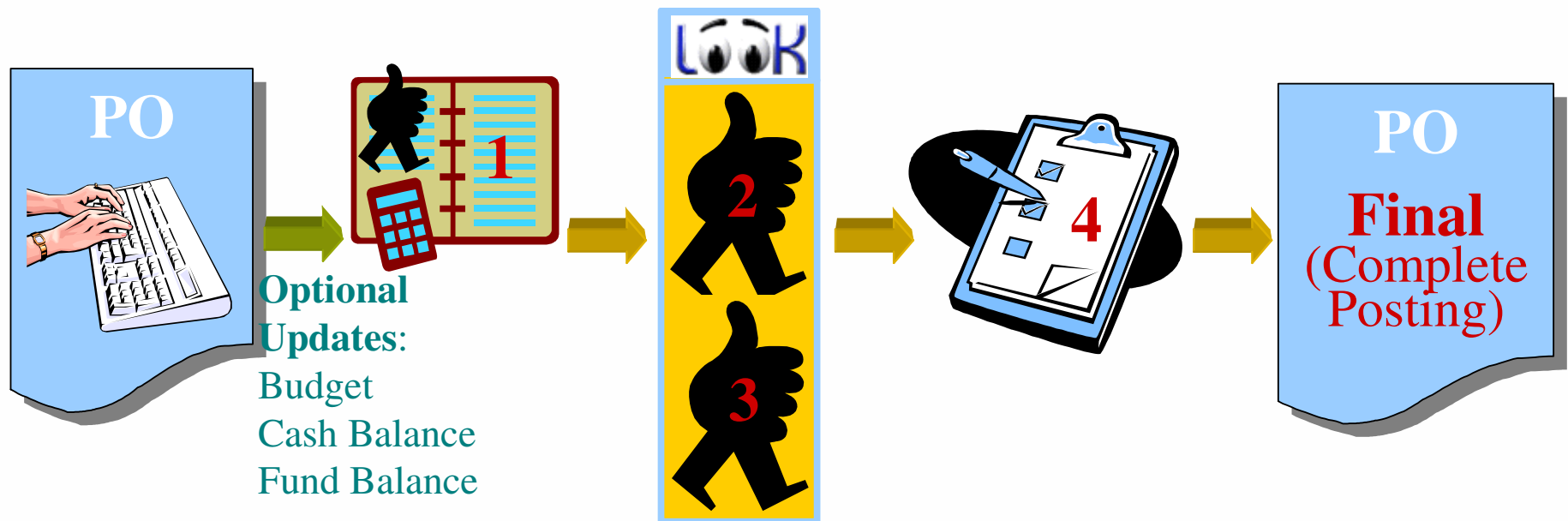
Approval Process Activation

▸ Document setup determines whether or not Approval Process is activated for a given document. Even if Approval Rules and Conditions are defined for a document, Approval Processing may be inactive.

Approval Level Activation

▸ Although Approval Levels may defined for a given document, they are controlled via Security setup and are activated by User Role

Approval Rules

▸ The Approval Rule applied to a document, if any, is the ONE that matches the Document Code and most specifically matches the document's organizational values (based on Dept and/or Unit)

▸ The Approval Rule may include up to 15 Approval Levels.
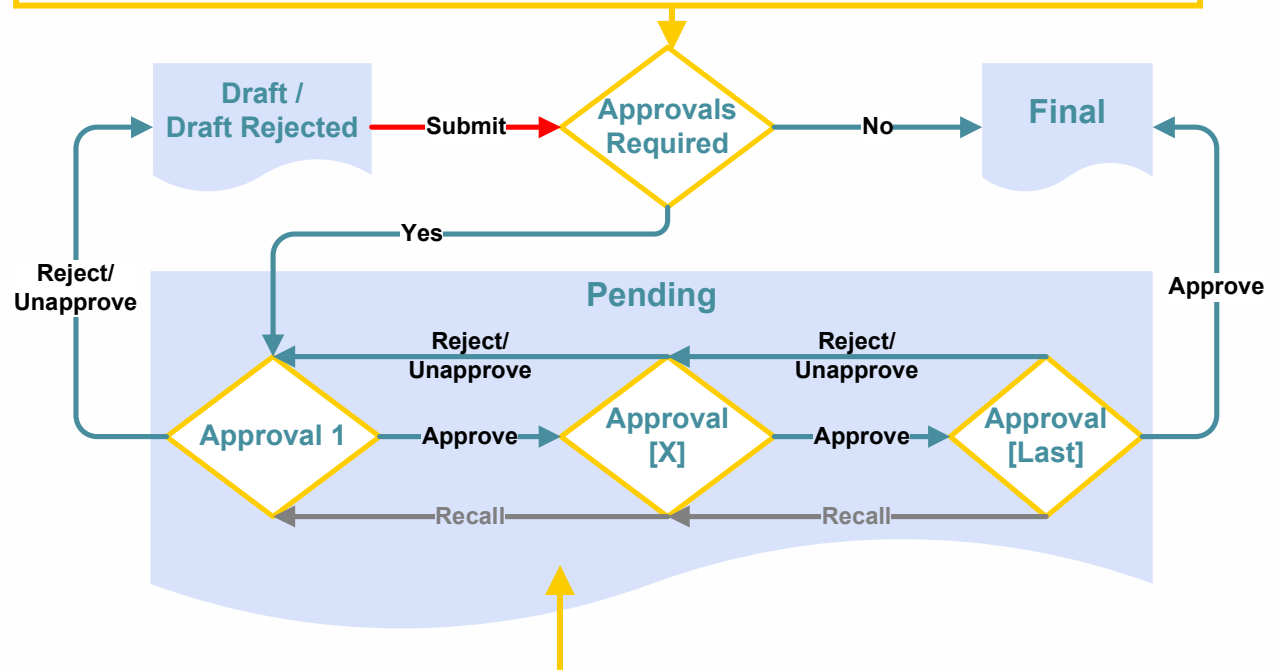
Approval Process *Pending* Phase

▸ Documents are assigned a Pending phase during the entire Approval Process, until the document is ultimately approved or rejected by all applicable Approval Levels.

- A document may go through up to 15 Approval Levels.

- Approval actions determine automated document routing sequence

- Documents rejected after prior approvals are routed back to previous 'approvers' for reconsideration.

- After final 'approval,' the document is revalidated to ensure it still complies with standing business rules. If it passes revalidation its Phase becomes Final.

- If a document is Rejected (and/or fails revalidation), it returns to Draft Phase and the original submitter is notified.

Draft / Draft Rejected — Submit → **Approvals Required** — No → **Final**

Pending

Reject/Unapprove

Yes

Reject/Unapprove   Reject/Unapprove

Approval 1 — Approve → **Approval [X]** — Approve → **Approval [Last]** — Approve

Recall   Recall

DOCUMENT

Approval #1   **Approval #2** ········· **Approval #15**

OR Condition 1   **OR Condition 5**

AND Condition 1   AND Condition 1

AND Condition 5   AND Condition 5

Assignee: Individual or Role

Options: - Routing # -Comment - Email

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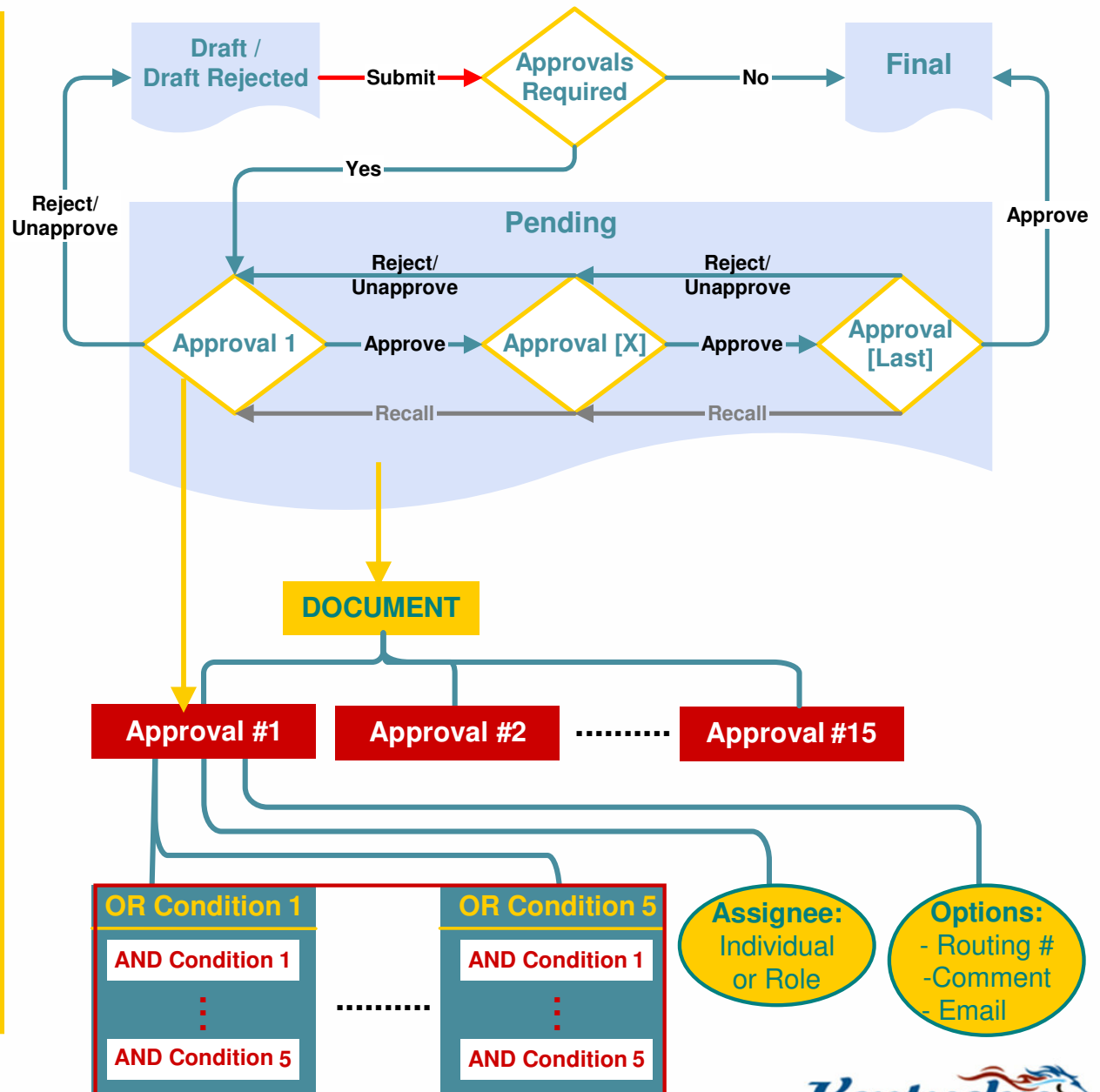
Approval Rules

Approval Setup table – Preview

	Doc Code	Government Branch	Cabinet	Department	Division	Group	Section	District	Bureau	Unit	From Date	To Date
✓	GAX	????		????	150	HWY	????	????	????	????	1300		

First Prev Next Last

Workflow Details

Save Undo Delete Insert Copy Paste   Search

*Doc Code : `GAX`

From Date : [   ]

To Date : [   ]

Government Branch : `????`   Division : `HWY`   District : `????`

Cabinet : `????`   Group : `????`   Bureau : `????`

Department : `150`   Section : `????`   Unit : `1300`

Self-approval? : `Submitter restricted`

▼Approval Level 1

Routing Sequence : `1`

Condition 1 : `ELEARN`

Condition 2 : `0`

Condition 3 : `0`

Condition 4 : `0`

Condition 5 : `0`

Assignee ID : `AP Peer`

Assignee Is Role? : ☑

Worklist Comment ID : `11`

Worklist Comment : `Peer approval for payment`

Email? : ☐

Rule : `((ABS_DOC_ACTG.LN_AM >= 10000) AND`

▶Approval Level 2

▶Approval Level 3

▶Approval Level 4

▶Approval Level 5

Flow diagram:

1. Roles — IWF01
3. Fields — IWF06
4. Conditions — IWF07
5. Comments — IWF05
6. Email — IWF00
7. Approval Hierarchy — APRVHIER

2a. Approvers (Roles:Users) — IWF01/IWF11
2b. Alternate Approvers — IWF02
8. Approval Setup — IWF08
9. Activation & Actions — DCTRL SCRACS
→ PO Worklist

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WFMDATA

BATRUN

Approval Meta Data

Document Code	Document Component	Document Field	Document Field Name
✓ ABDL	ABS_DOC_ACTG	ACAT_CD	Activity Category
ABDL	ABS_DOC_ACTG	ACLS_CD	Activity Class
ABDL	ABS_DOC_ACTG	ACTG_LN_DSCR	Line Description
ABDL	ABS_DOC_ACTG	ACTG_TMPL_ID	Accounting Template
ABDL	ABS_DOC_ACTG	ACTV_CD	Activity
ABDL	ABS_DOC_ACTG	AGRP_CD	Activity Group
ABDL	ABS_DOC_ACTG	AL_CLSD_AM	Line Closed Amount
ABDL	ABS_DOC_ACTG	AL_CLSD_DT	Line Closed Date
ABDL	ABS_DOC_ACTG	AMS_ROW_VERS_NO	AMS_ROW_VERS_NO
ABDL	ABS_DOC_ACTG	APCAT_CD	Appr Category

First Prev Next Last

Save Undo Delete Insert Copy Paste

Document Code : ABDL Data Type : 12

Document Component : ABS_DOC_ACTG Scale :

Document Field : ACAT_CD Size : 4

Document Field Name : Activity Category Primary Key : ☐

Batch Catalog

- Financial
  - ▶ Accounts Receivable
  - ▶ Accounts Payable
  - ▶ Cost Accounting
  - ▶ Matching Manager
  - ▶ Procurement
  - ▶ Utilities
  - ▶ Fixed Asset
  - ▶ Investment
  - ▶ Posting
  - ▶ Vendor Self-Service
  - ▶ General Accounting
  - ▶ Systems Assurance
  - ▶ Budget
  - ▶ Inventory
  - ▶ Interface Control
  - ▶ Conversion Processes
  - ▼ Admin Utilities
    - 📇 Populate Document Codes
    - 📇 Populate Workflow Meta Dat
- Administration
  - ▼ Utilities
    - 📇 System Maintenance Utility
    - 📇 Begin Day
    - 📇 Populate Document Codes
    - 📇 Populate Workflow Meta Dat
    - 📇 Job Manager Output Archive
    - 📇 Job Manager Output Restore

Notes

- ▶ Before you do any further setup (i.e., approval fields, conditions, rules, etc.) the Approval Meta Data must exist in the application.
- ▶ The meta data should be setup by an administrator shortly after the database is loaded. It should be a one-time task.
- ▶ It is done via the Job Manager and the jobs highlighted to the left.
- ▶ You may check to see if the meta data is loaded by going to the Approval Meta Data (WFMDATA) table – it only lists UDOC info as delivered (vs. data for all document codes).

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Approval Conditions Model

IWF07

DOCUMENT

Approval #1 .... **Approval #15**

OR Condition 1 **OR Condition 5**

AND Condition 1 AND Condition 1

AND Condition 5 AND Condition 5
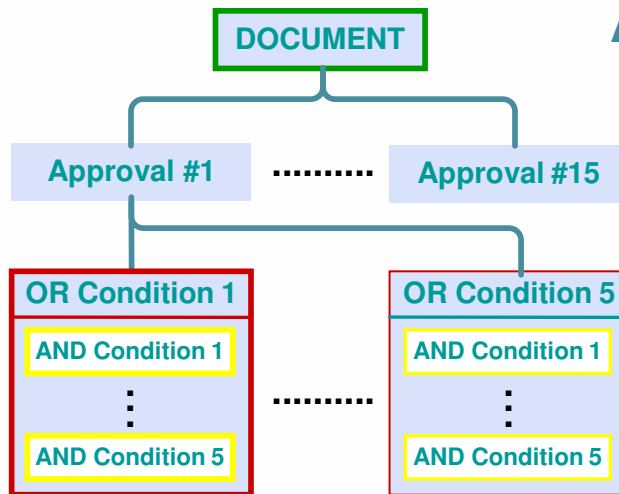
Manage Approval Conditions

Condition ID	Document Code
✓ ELEARN	GAX
HDRAMT	GAX

First Prev Next Last

Save Undo Delete Insert Copy Paste   Search

*Condition ID : ELEARN   *Document Code : GAX

▼Condition 1
Left Hand Side : ABS_DOC_ACTG.LN_AM
Operator : >=
Right Hand Side : 10000

▶ Condition 2
▶ Condition 3
▶ Condition 4
▶ Condition 5

Top
Approval Fields

Notes

▸ The Manage Approval Conditions table is the substance of the Approval Conditions Model.

▸ Here are defined the rules that are applied to document fields to determine if approvals are required.

▸ Up to five 'AND' sub-conditions may be defined for each Approval Condition (an 'OR' condition)

▸ Up to five 'OR' Approval Conditions may be combined to determine if a single Approval Level is required. (Discussed later)

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Manage Approval Comments — IWF05

	Comment ID	Comment	
✓	0	Returned to be corrected/resubmitted	
	11	Peer approval for payment	
	12	1st level manager approval for payment	
	13	Approve for special conditions -- purchases/payments	
	14	Approve technology/software purchase	
	15	Section level payment approval	

First Prev Next Last

Save Undo Delete Insert Copy Paste   Search

*Comment : Returned to be corrected/resubmitted

Email Setup — IWF00

	Department	Server Name	Message Folder	SMTP Server Name	Auton
✓	????	wells.ams.com	INBOX	wells.ams.com	sa

First Prev Next Last

Save Undo Delete Insert Copy Paste   Search

Department : ????
*Server Name : wells.ams.com
Message Folder : INBOX
*SMTP Server Name : wells
*Automatic Sender ID : sa
*Protocol : pop3

Configuration Points
▸ Insert a line for each Approval Comment

Notes
▸ Approval Comments are optional messages that may be displayed on the Worklist during approval processing, indicating approval purpose

Configuration Points
▸ Insert a record for each Workflow email server

Notes
▸ In order to send emails during approval processing it is necessary to setup and maintain the list of email servers for the system.
▸ The system allows email servers to be setup for individual departments and/or centrally. The email server for each user is defined based on their home department code.
▸ If no email server is found for a department, then the central email server (Dept "????") is used.

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Approval Hierarchy

Menu Quick Search

APRVHIER

Sequence	Government Branch	Cabinet	Department	Division	Group	Section	District	Bureau	Unit
1			✓						✓
2			✓	✓		✓			
3			✓	✓					
4			✓				✓		
5			✓						
6	✓	✓	✓						
7	✓	✓							
8	✓								
9	✓	✓	✓	✓	✓	✓	✓	✓	
10	✓	✓	✓	✓	✓	✓	✓		

Save Undo Delete Insert   First Prev Next Last   Search

Configuration Points

▶ Set the organizational elements, in order of precedence, that will be used to identify the correct Approval Rule (on Approval Setup/IWF08) to apply to any given document.

▶ The application must be restarted in order for changes to take effect.

Notes

▶ This table is used to perform a look up on the UNIT table to retrieve the corresponding organizational codes – based on the Department and Unit on the document Header.

▶ This allows for different approval rules to be defined at different levels of an organization and for those rules to have an order of precedence (as only one rule ever applies to a given document).

Document-Level Configuration – Workflow & Approvals

Approval Conditions Model

IWF08

```
                    DOCUMENT
        ┌──────────────┼──────────────┐
   Approval #1    Approval #2  ······  Approval #15
        │
   ┌────────────────────────────────┐
   │ OR Condition 1    OR Condition 5 │    Assignee
   │  AND Condition 1   AND Condition 1│
   │       ⋮                ⋮          │    Comment
   │  AND Condition 5   AND Condition 5│
   │                                  │    Email
   └────────────────────────────────┘
```

Approval Rules

	Doc Code	Government Branch	Cabinet	Department	Division	Group
✓	GAX	????		????	150	HWY	????

First Prev Next Last

Workflow Details

Save Undo Delete Insert Copy Paste   Search

*Doc Code : GAX   Government Branch : ??
From Date :   Cabinet : ??
To Date :   Department : 15
Self-approval? : Submitter restricted

▼ Approval Level 1
Routing Sequence : 1   Assignee ID : AP
    Condition 1 : ELEARN   Assignee Is Role? : ☑
    Condition 2 : 0   Worklist Comment ID : 11
    Condition 3 : 0   Worklist Comment : Peer
    Condition 4 : 0   Email? : ☐
    Condition 5 : 0   Rule : ((AB
                                            1000
                                            (ABS
                                            = "7

▶ Approval Level 2
▶ Approval Level 3
▶ Approval Level 4
▶ Approval Level 5

Notes

- The Approval Setup table is the central table for defining the approval process for any document.

- This table links Document Code, Organization, Approval Conditions, Comments, Approvers, Email notification, and Routing Sequence.

- Up to five 'OR' Approval Conditions may be defined for each Approval Level.

- Up to 15 Approval Levels may be established.

- Approvals Levels may be routed in sequence, in parallel, or both

SCRACS

Access Control

Resource Group ID	Security Role ID	Organizational S...
✓ GAX	AP_ADMIN	None

First Prev Next Last

Save Undo Delete Insert Copy Paste   Search

*Resource Group ID : GAX   *Organiza...

*Security Role ID : AP_ADMIN

▶Approvals

▶Actions

▶Application

Top
Security Role Inf

▼Approvals
Grant All Remove All

Approval Level 1 : ☑   Approval Level 6
Approval Level 2 : ☑   Approval Level 7
Approval Level 3 : ☑   Approval Level 8
Approval Level 4 : ☑   Approval Level 9
Approval Level 5 : ☑   Approval Level 10

▼Actions
Grant All Remove All

Schedule : ☑	Edit : ☑	Submit : ☑	Reassign : ☑	Page Open : ☐
Deactivate : ☐	Insert Line : ☐	Import : ☑	Send Message : ☑	Indirect Authority : ☐
Activate : ☐	Delete Line : ☐	Export : ☑	Reject All : ☑	Delete Alt. View Att. : ☐
Archive : ☑	Attach : ☑	Print : ☑	Bypass Approvals : ☑	Add Comments : ☑
Archive History : ☑	New : ☑	Scan : ☐	Mark For Processing : ☐	
Unarchive : ☑	Copy : ☑	Approve : ☑	Hold Document : ☑	
Open : ☑	Discard : ☑	Reject : ☑	Apply Overrides : ☑	
Save : ☑	Validate : ☑	Unapprove : ☑	Remove Overrides : ☑	

Configuration Points

▸ Select Approval Levels that are authorized for this Security Role (and given document).

▸ Select the Approval Actions necessary for the approvers to complete their Workflow tasks.

Notes

▸ Care must be taken to ensure that users have the requisite approval level authority to match their designation(s) as approval level 'assignees' (at a minimum).

▸ Recognize that a Security Role & Resource Group combo/mapping may include multiple Document Codes, whereas Approval Rules on the Approval Setup table are Document Code-specific. Organizational alignment between Approval Rules and Security setup must also be ensured.

Document Control

DCTRL

Menu Quick Search

	Document Type	Document Code	Document Name	Active	Effective From	Effective To
✓	ABS	GAX	General Accounting Expense/Expenditure	Yes		

First Prev Next Last

Save Undo Delete Insert Copy Paste   Search

▸ **General Information**

▾ **General Options**

Def Event Type : AP01

Doc Entry Start :

Doc Entry End :

Document Minimum : $0.00

Document Maximum : $0.00

Min/Max Severity : Warning

Vendor Rule : Required

Customer Rule : Prohibited

Ref Document Rule : Optional

COA

Rollup

Rollup

Rollup Exception

Time Restriction Severity : Reject

Time Restriction : Limited by Ac

Override Pend Phase Ind : Required befo

Submit Phase : Pending

Workflow Process Indicator : Internal

Workflow Asynchronous Processing : ☐

*Service Date Severity : No Error

Infer Codes : ☑

Journal Posting Control : Synchronous

▾ **Required Elements**

Document Name Required : ☐   Offline Required : ☐

Doc Description Required : ☐   Auto Numbering Required : ☐

AI Description Required : ☐   Document Unit Code Required : ☑

Event Type Required : ☑   Vendor Invoice Required : ☐

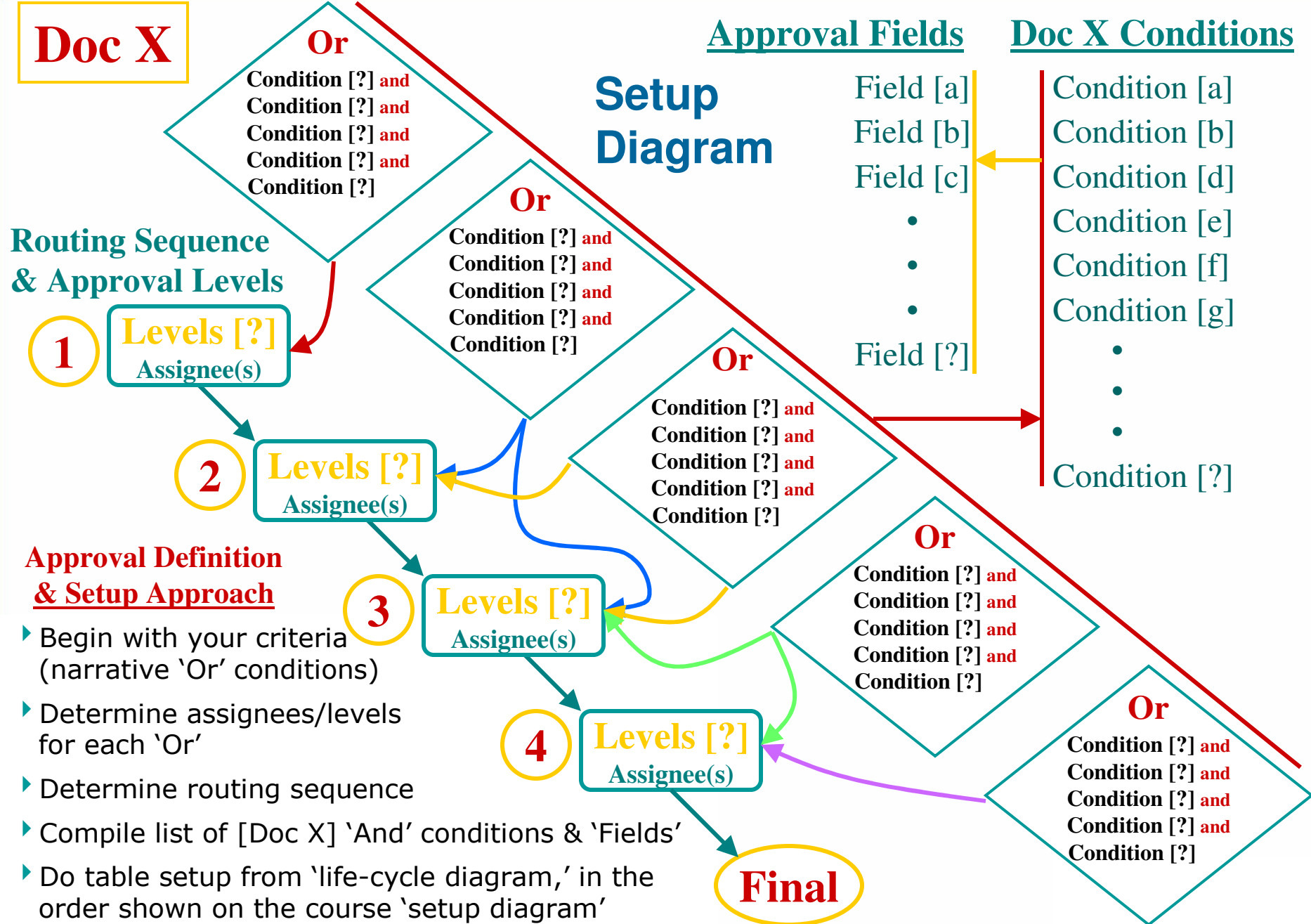▸ **Required Elements**

▸ **Allowable Elements**

Configuration Points
▸ Submit Phase: Pending/Final = On/Off
▸ Override Pending Phase Indicator: determines if submitter or approver applies overrides
▸ Set the Workflow Process Indicator to use the ADVANTAGE "Internal" workflow engine, an "External" workflow engine, or "Both Internal and External". Technical work is required for 'External.'
▸ Check Workflow Asynchronous Processing indicator if document is to be held after completing approvals
▸ Check Document Unit Code Required if Approval Rules are specific to decentralized organizational levels.

eMARS Management Administrative & Reporting System

Kentucky UNBRIDLED SPIRIT

Doc X

Or
Condition [?] and
Condition [?] and
Condition [?] and
Condition [?] and
Condition [?]

Setup Diagram

Approval Fields

Field [a]
Field [b]
Field [c]
•
•
•
Field [?]

Doc X Conditions

Condition [a]
Condition [b]
Condition [d]
Condition [e]
Condition [f]
Condition [g]
•
•
•
Condition [?]

Routing Sequence & Approval Levels

Or
Condition [?] and
Condition [?] and
Condition [?] and
Condition [?] and
Condition [?]

① **Levels [?]** Assignee(s)

② **Levels [?]** Assignee(s)

Or
Condition [?] and
Condition [?] and
Condition [?] and
Condition [?] and
Condition [?]

Approval Definition & Setup Approach

③ **Levels [?]** Assignee(s)

Or
Condition [?] and
Condition [?] and
Condition [?] and
Condition [?] and
Condition [?]

▸ Begin with your criteria (narrative 'Or' conditions)

▸ Determine assignees/levels for each 'Or'

④ **Levels [?]** Assignee(s)

Or
Condition [?] and
Condition [?] and
Condition [?] and
Condition [?] and
Condition [?]

▸ Determine routing sequence

▸ Compile list of [Doc X] 'And' conditions & 'Fields'

▸ Do table setup from 'life-cycle diagram,' in the order shown on the course 'setup diagram'

Final

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RA

Reverse Auction

Setup Diagram

RA Fields

a. Accounting Period (hdr)
b. Total Amount (hdr)
c. Appropriation Type (actg)
d. Event Type (actg)
e. Doc Version (hdr)
f. Reference Dept (actg)
g. Reference Doc Code (actg)

RA Conditions

a. Accounting Period = 12
b. Department = Exec
c. Encumbrance > $25,000
d. Appr. Type = 1CN, 1CS, 1IN, 1IS, 1RS
e. Event Type = PR52
f. > Delegation Amt ($500k)
g. Version 1 of document
h. Does not reference MA doc created by OMD dept
i. Accounting line delta <> 0

Or

a. APD = 12 and
b. Dept = Exec and
c. Enc. > $25,000 and
d. Appr. Type = 1CN, 1CS, . . .

Or

e. Event Type = PR52

Or

f. > Delegation Amt ($500k) and
g. Version 1 and
h. Does not ref. MA from OMD

Or

f. > Delegation Amt ($500k) and
i. Acct line Δ <> 0 and
h. Does not ref. MA from OMD

Routing Sequence & Approval Levels

1 **Level 8** RPO-ANF (role)

2 **Level 9** RPO-CTR (role)

Final
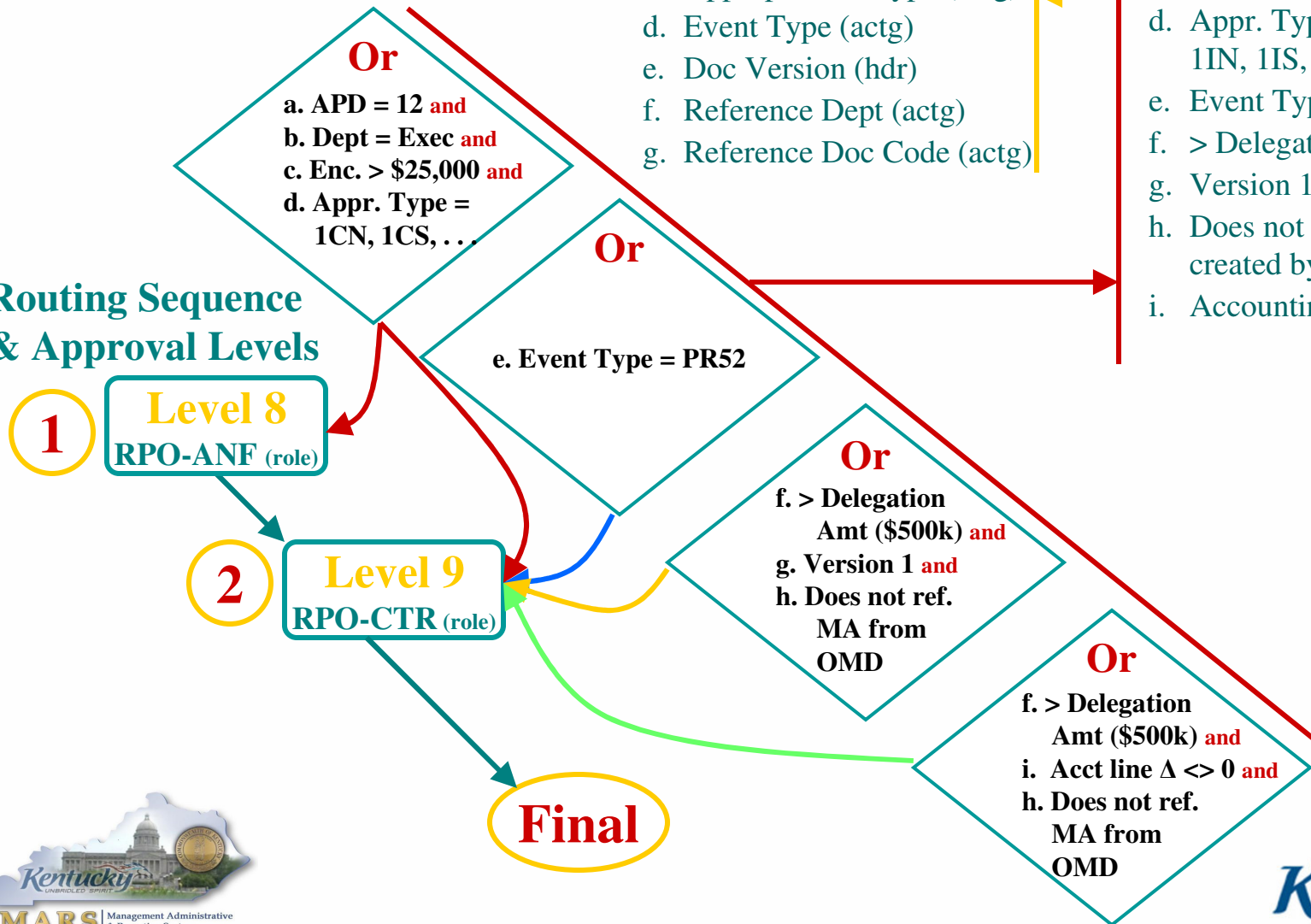
Set up an Approval Rule for the new document

- Time permitting: use page search to pull up the IWF* tables and APRVHIER table.

- Move through the setup diagram below to establish a complete Approval Rule for the new document.

Creating A New Document Code

Course flow:

Part 2

```
                    Add to Document
                    Control Table  ✔

                    Add to Application        ✔ (If Needed)
                 ✔  Page Registration  ◄─────  Create
                                               New HTML
```

New Event Type Created? ✔

Automatic Document Numbering ✔

Application Resources ✔

Workflow Needed ✔

If Doc Type RQ, PO, SO, EV, RC, SR ✔

Allowable Accounting Periods for Document Code ✔

Document Allowable References ✔

Yes (New Event Type Created)

Yes (Workflow Needed)

Allowable Event Types for Document Type ✔

Add Needed Entries to Default Event Types ✔

Approval Fields ✔

Procurement Document Control ✔

Tolerances ✔

Allowable Event Types for Document Code ✔

AP, MD, or DC Event Type Crosswalk ✔

Approval Conditions ✔

Procurement Type ✔

Document Code Tolerances ✔

A/R

A/P

BFY Profiles & Stage Document Events ✔

Approval Setup ✔

✔ **Required Budget**

Yes

If A/R or A/P document ✔

Budget Posting Codes ✔

Congrats!

- Introduction

- General configuration

- Configuration Touching Document-level Setup

- **Miscellaneous configuration of interest**

  - Workspace Setup & Configuration

- Ad hoc discussion and exploration

Navigational Security Approach –
Workgroup & Workspace Example

User

➢ **Workgroup: 'System Admin'**

   ➢ **Workspace**

      ➢ **Business Area**

         ➢ **Business Function**

            ➢ **Business Item/ the 'resource'**

- ▸ Workspaces includes links to pages inside Advantage
- ▸ Made to help users finding their "work"
- ▸ Includes helpful instructions what the links are for and how to use them
- ▸ Workspaces are user-configurable, i.e. users can add and remove workspaces in their environment
- ▸ Three types of workspace assignment: System, Workgroup, Individual
- ▸ During the **first** login to Advantage, Workspaces included in the user's default Workgroup will be automatically created/displayed. Users may be assigned multiple Workgroups.

Workspace Creation Options

Spreadsheet/Database

These database tables store the Workgroup, Workspace, and user assignment information. They would be setup /imported in the right order, top down.

Database Tables:

in_wkgp

in_wksp

in_ba

in_bf

in_bf_item

in_user_wkgp

User Interface

System Workspaces or Workgroups for Multiple Users

WGRP

Individual/Personal Workspaces

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Workgroup Assignment & Workspace Display/Maintenance

WKWG

Database Tables:
in_wkgp
in_wksp
in_ba
in_bf
in_bf_item
in_user_wkgp

OR →

Personalization:
- First login will create/ display the workspaces for the default workgroup.
- Otherwise users copy available workspaces from workgroups to "In-Use" section

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- Introduction

- General configuration

- Configuration Touching Document-level Setup

- Miscellaneous configuration of interest

- **Ad hoc discussion and exploration**